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WAR MACHINE

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Revolver versus
Automatic

Armed Forces of the World: US Navy (Part 1)

What use is a pistol in combat?

The Walther P 38 in Action

Occupation!

A fully illustrated guide to Pistols of World War II

WAR MACHINE

Volume 3 **Issue 34**

CONTENTS

Pistols of World War II

Enfield No. 2 Mk 1 and Webley Mk 4 662
Tokarev TT-33 663
Occupation! 664
Pistole P 08 (Luger) 666
What use is a pistol in combat? 667
Walther PP and PPK 668
Walther P 38 668
The Walther P 38 in Action 669
Pistole Automatique Browning modèle 1910 672
Pistole Automatique Browning, modèle à Grande Puissance (Browning HP) 672
Liberator M1942 673
Colt M1911 and M1911A1 673
The Colt M1911 and M1911A1 674
Smith & Wesson 0.38/200 Revolver 676
Revolver versus Automatic 677
Smith & Wesson M1917 678
Pistolet Radom wz.35 678
Automaticky Pistole vz.38 (CZ 38) 679
94 Shiki Kenju 679
Pistola Automatica Glisenti modello 1910 680
Pistola Automatica Beretta modello 1934 680

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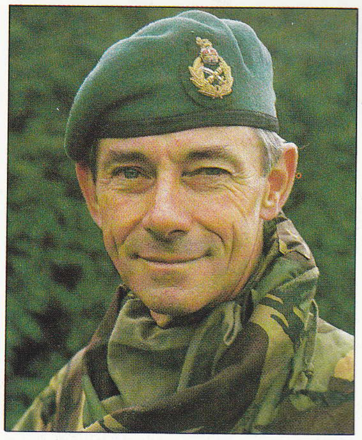

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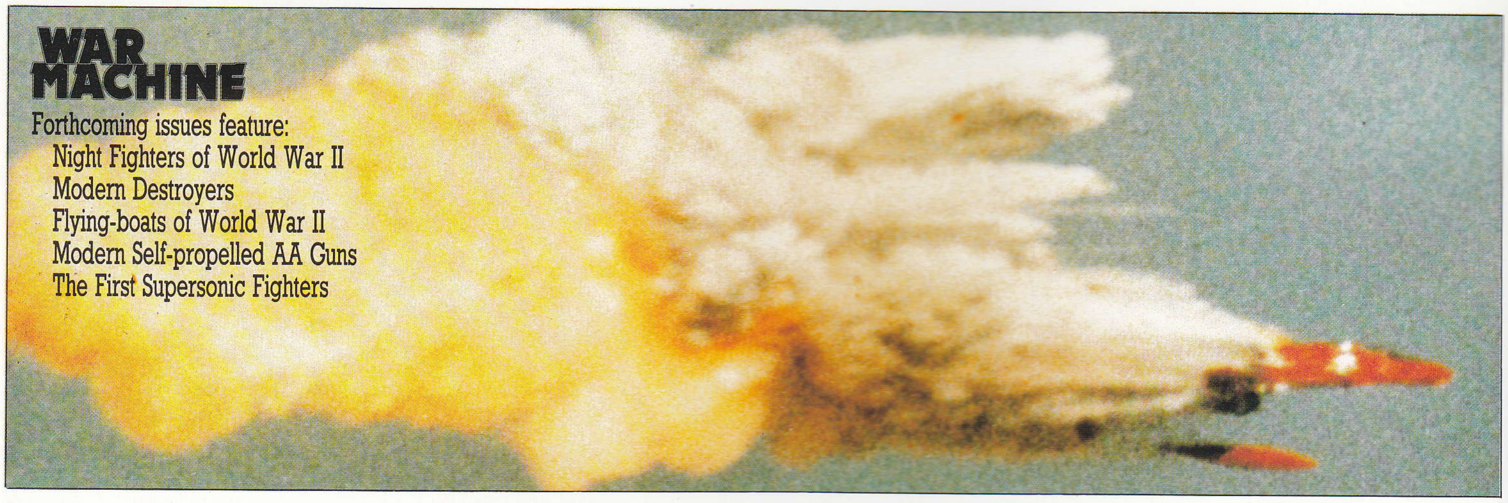
Cover photograph: An Italian Alpini officer aims his Beretta modello 1934.



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Pistols of World War II

Pistols are very close to the heart of fighting soldiers, and in World War II one of the most prized trophies on the Allied side was a captured German or Italian pistol. Yet as a weapon of war the hand gun seems of very little value, so what is the explanation for the retention of the sidearm in the armies of the 20th century?

December 1944, and the Battle of the Bulge is at its height. SS men pose in front of a captured American armoured car, captured Camels hanging from their lips. The pistol is a Browning, made in Belgium for the occupying Germans. The same pistol design was manufactured in Canada for the Allies!

The pistol, be it a revolver or an automatic, has long had an attraction for the soldier. Quite apart from the intrinsic attraction of the weapon, it is one that is very often a highly personal possession and one in which he usually takes great pride, for after even a very short time in service the soldier learns to appreciate its value to his well-being and chances of survival, especially when he is carrying out an operational role where no other weapon is available.

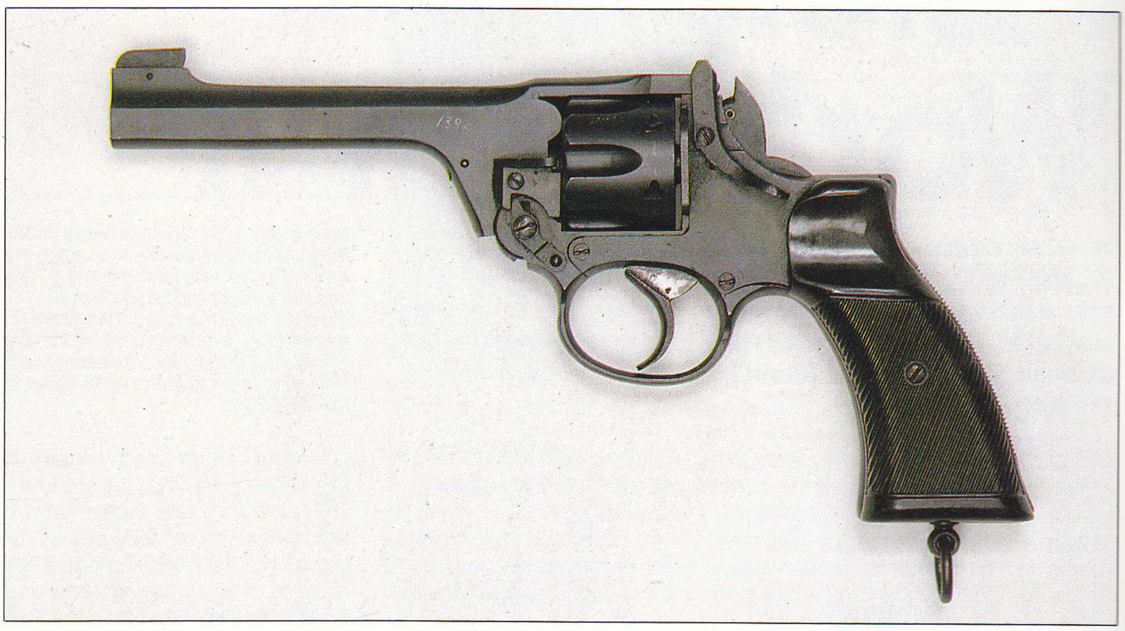
This attraction is difficult for the layman to appreciate, for even limited firing of any service pistol will reveal that it is inaccurate, difficult to use effectively and possesses only a very limited range. It is somewhat tricky to reconcile these two completely accurate conclusions, but the plain fact is that the pistol was used on a scale during World War II that overshadowed its employment in any previous conflict. On all fronts demands for pistols, more pistols and still more pistols were made throughout the conflict, and as a result the range of models and types was immense, those mentioned here being only a general indication of some of the more important types.

Despite the many advances in pistol design and development made in this century, it should be noted that the revolver was still in use between 1939 and 1945; and this remains true to this day, for the automatic pistol has not been able fully to oust the strong and reliable revolver. But the automatic pistol was in widespread use all the same, employing a large number of operating systems and an equally diverse range of calibres, despite the fact that the 9-mm Parabellum cartridge had emerged as the clear all-round leader. And quite apart from other factors, the study of the pistol is rewarding for its revelation of the great degree of ingenuity that designers have been able to bring to pistol design. World War II brought with it innovations and oddities, but what may be regarded as antiques were still in the field. Some of these will be found here, but the reader is asked to use these entries only as a general guide.

The pistol in its classic role as the weapon carried by a leader: in this case an officer in command of an infantry unit during one of the Alamein battles of 1942. The pistol is an Enfield No. 2 Mk 1, the 'standard' British and Commonwealth service pistol of World War II, with safety lanyard.

UK

Enfield No. 2 Mk 1 and Webley Mk 4



Above: The Enfield No. 2 Mk 1 revolver was the most widely used of all the British and Commonwealth armed forces. Firing a 0.38-in (9.65-mm) ball cartridge, it was an efficient combat pistol but lacked any finesse or frills; yet it was able to withstand the many knocks of service life.*

During World War I the standard British service revolver was one variant or other of the Webley 0.455-in (11.56-mm) pistol. These were very effective pistols, but their weight and bulk made them very difficult to handle correctly without a great deal of training and constant practice, two commodities that were in short supply at the time. After 1919 the British army decided that a smaller pistol firing a heavy 0.38-in (9.65-mm) bullet would be just as effective as the larger-calibre weapon but would be easier to handle and would require less training. So Webley and Scott, which up to that time had been pistol manufacturers of a virtually official status for the British armed forces, took its 0.455-in (11.56-mm) revolver, scaled it down and offered the result to the military.

To the chagrin of Webley and Scott, the military simply took the design, made a few minor alterations and then placed the result in production as an 'official' government design to be produced at the Royal Small Arms Factory at Enfield Lock in Middlesex. This procedure took time, for Webley and Scott offered its design in 1923 and Enfield Lock took over the design in 1926. Webley and Scott was somewhat nonplussed at the course of events but proceeded to make its 0.38-in (9.65-mm) revolver, known as the **Webley Mk 4**, all over the world with limited success.

The Enfield Lock product became the **Pistol, Revolver, No. 2 Mk 1** and was duly issued for service. Once in service it proved sound and effective enough, but mechanical progress meant that large numbers of these pistols were issued to tank crews and other mechanized personnel, who made the unfortunate discovery that the long hammer spur had a tendency to catch onto the many internal fittings of tanks and other vehicles with what could be nasty results. This led to a redesign in which the Enfield pistol had the hammer spur removed altogether and the trigger mechanism lightened to enable the weapon to be fired double-action only. This revolver became the **No. 2 Mk 1***, and existing Mk 1s were modified to the new standard. The double action made the pistol very difficult to use accurately at all except minimal range, but that did not seem to matter too much at the time.

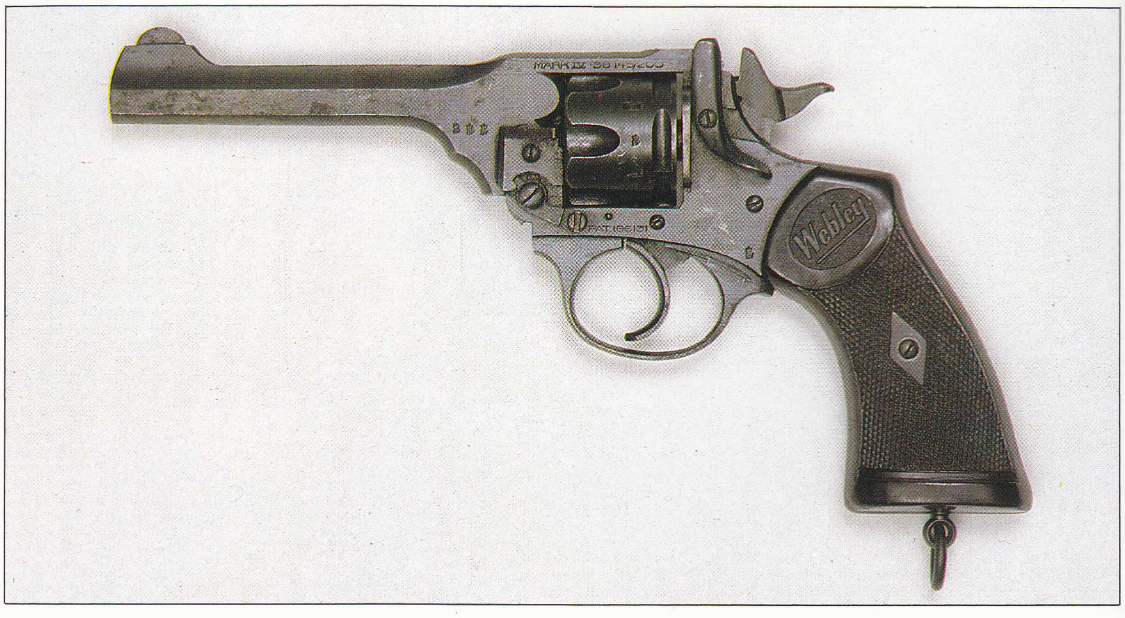
Webley and Scott re-entered the scene during World War II, when supplies of the Enfield pistols were too slow to meet the ever-expanding demand. Thus the Webley Mk 4 was ordered to eke out supplies, and Webley and Scott went on to supply thousands of its design to the British army after all. Unfortunately, although the two pistols were virtually identical in appearance there were enough minor differences between them to prevent interchangeability of parts.

Both pistols saw extensive use between 1939 and 1945, and although the Enfield revolvers (there was a **No. 2 Mk 1**** which embodied wartime production expedients) were the official standard pistols, the Webley Mk 4 was just as widely used among British and Commonwealth armed forces. Both remained in service until the 1960s and both are still to be encountered as service pistols in various parts of the world.

Specification
Revolver No. 2 Mk 1*
Cartridge: 0.380 SAA ball (9.65 mm)
Length overall: 260 mm (10.25 in)
Length of barrel: 127 mm (5 in)
Weight: 0.767 (1.7 lb)
Muzzle velocity: 183 m (600 ft) per second
Chamber capacity: 6 rounds

Specification
Webley Mk 4
Cartridge: 0.380 SAA ball (9.65 mm)
Length overall: 267 mm (10.5 in)
Length of barrel: 127 mm (5 in)
Weight: 0.767 (1.7 lb)
Muzzle velocity: 183 m (600 ft) per second
Chamber capacity: 6 rounds

Below: An airborne soldier stands guard on a house in Holland during Operation 'Market Garden'. The pistol is an Enfield No. 2 Mk 1 with the hammer removed to prevent snagging on clothing or within the close confines of vehicles or aircraft. They were issued to airborne soldiers such as glider pilots.*



The Webley Mk 4 revolver was used as the basis for the Enfield No. 2 Mk 1 but was passed over in favour of the government-sponsored development. In time the call for more revolvers was so great that the Mk 4 was placed in production for the British armed forces and used alongside the Enfield pistols.

USSR

Tokarev TT-33

Above: The Soviet Tokarev TT-33 in action in a well-posed propaganda photograph dating from about 1944. The officer is leading a section of assault infantry and has his pistol on the end of the usual lanyard. Snipers on all sides came to recognize these 'pistol wavers' as prime targets.

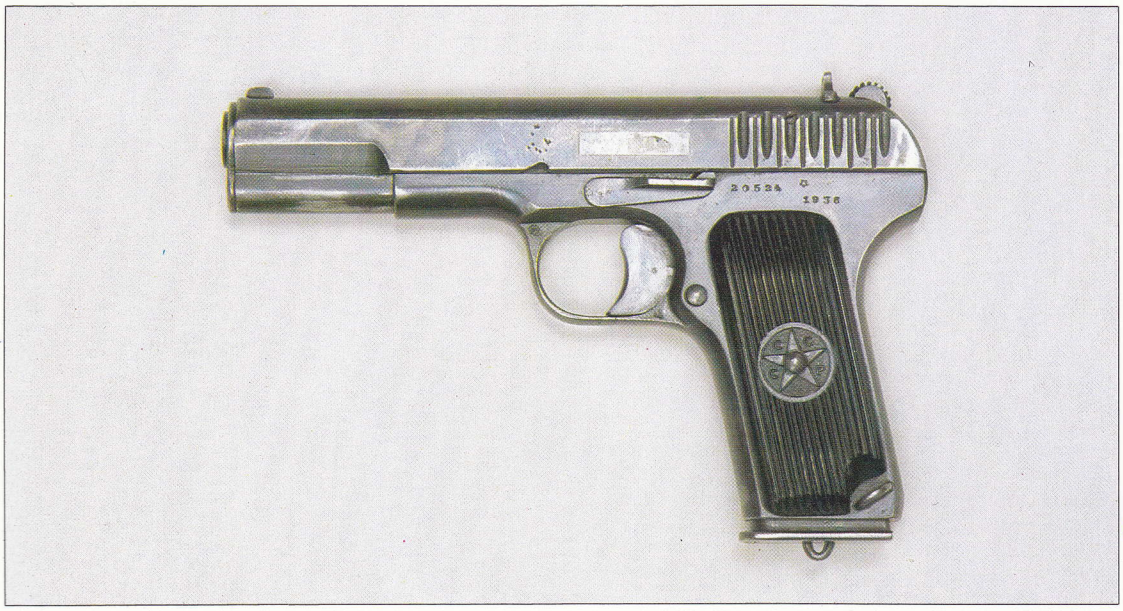
The first Tokarev automatic pistol to see extensive service was the **TT-30**, but not many of these pistols had been produced before a modified design known as the **TT-33** was introduced in 1933. This pistol was then adopted as the standard pistol of the Red Army to replace the Nagant revolvers that had served so well for many years. In the event the TT-33 never did replace the Nagant entirely until well after 1945, mainly because the revolver proved so reliable and sturdy under the rough active service conditions of the various fronts.

The TT-33 was basically a Soviet version of the Colt-Browning pistols, and used the swinging-link system of operation employed on the American M1911. However, the ever practical Soviet designers made several slight alterations that made the mechanism easier to produce and easier to maintain under field conditions, and production even went to the length of machining the vulnerable magazine feed lips into the main receiver to prevent damage and subsequent misfeeds. The result was a practical and sturdy weapon that was well able to absorb a surprising amount of hard use.

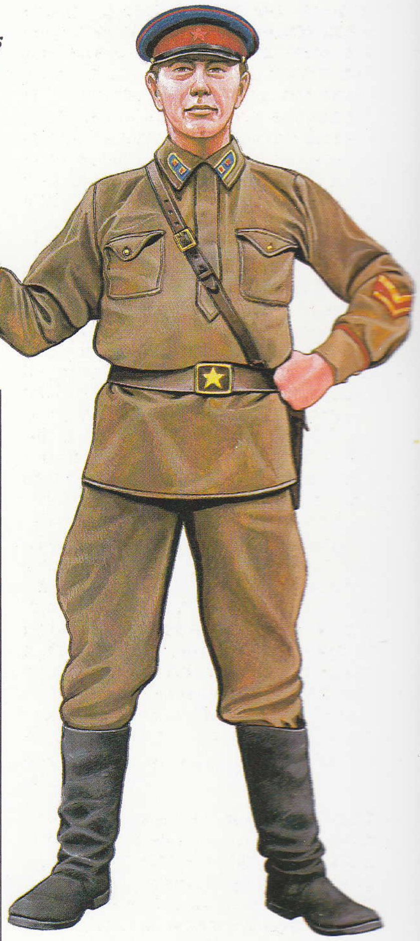
By 1945 the TT-33 had virtually replaced the Nagant revolver in service and as Soviet influence spread over Europe and elsewhere so did TT-33 production. Thus the TT-33 may be found in a variety of basically similar forms, one of which is the Chinese **Type 51**. The Poles also produced the TT-33 for their own use and for export to East Germany and to Czechoslovakia. The Yugoslavs still have the TT-33 in production and are still actively marketing the design as the **M65**. North Korea has its own variant in the form of the **M68**. The most drastic producer of the TT-33 is Hungary, which rejigged the design in several respects and recalibred it for the 9-mm Parabellum cartridge. The result was known as the **Tikagypt** and was exported to Egypt, where it is still used by the local police forces.

The TT-33 is now no longer used by the Soviet armed forces, who use the Markarov automatic pistol, but the TT-33 will be around for a long while yet. Despite the introduction of the Makarov many second-line and militia units within the Warsaw Pact are still issued with the TT-33 and as the type's overall standard of design and construction was sound there seems to be no reason why they should be replaced for many years.

The Tokarev TT-33 was a sturdy and hard-wearing pistol that was used throughout World War II, but it never entirely replaced the Nagant.



Right: A Red Army military policeman, for whom the Tokarev TT-33 would have been the primary weapon. Military policemen of all nations still carry the pistol as the nature of their duties often precludes the use of any type of larger weapon, and they have no actual combat role.



Specification

TT-33

Cartridge: 7.62 mm Type P (M30)

Length overall: 196 mm (7.68 in)

Length of barrel: 116 mm (4.57 in)

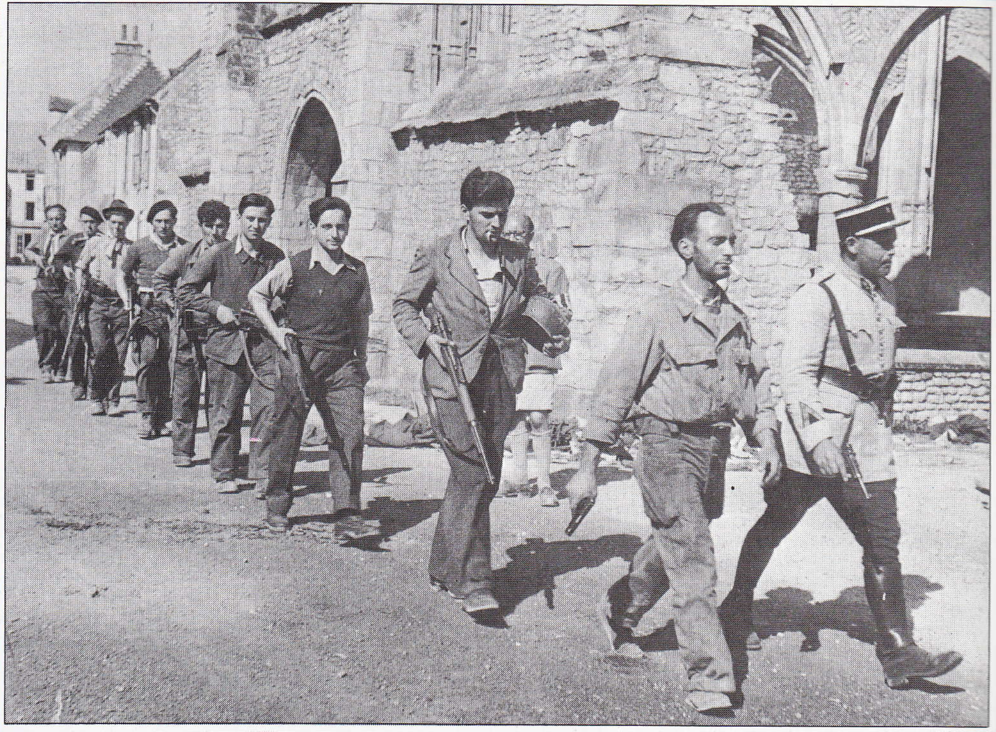
Weight: 0.830 kg (1.83 lb)

Muzzle velocity: 420 m (1,380 ft) per second

Magazine: 8-round box

Occupation!

Dunkirk did not mean the end of the battle in Europe. Another secret war was to commence, a brutal, unforgiving war fought largely by night. On the one side, resistance movements and Allied espionage and sabotage missions; on the other, German counter-terror waged by the secret arms of the Wehrmacht, police and, above all, the SS.



Above: A section of Maquis moving into action during the Normandy fighting of July 1944. The gendarme is carrying a Pistole P 08 (Luger), while by his side the civilian carries an American M1911 or M1911A1. The rest of the section carries a selection of French or German rifles and the usual Sten guns.

Throughout occupied Europe from 1940 to 1945 there was waged a small war which was little known at the time but which was nevertheless pursued with ruthless ferocity by both sides whenever the opportunity arose. This war was the one fought between the various Resistance movements and the German security agencies that are still often but mistakenly known collectively as the Gestapo. It was a war in which there was no quarter given or asked, and it was fought by small groups on a battlefield that stretched through the fields, streets and homes of all Europe.

One 'side' is now relatively easy to recognize, for it is represented by the resistance agent who could be either a special organizer sent into occupied Europe to make trouble of all kinds for the Germans, or a local person determined to drive the occupier out of the country by drastic means. On the German side the personnel were more complex in organization and form, and although the term Gestapo is often used to designate the personnel who arrayed themselves against the various resistance groups, there were in fact several German agencies involved.

This array of groupings against a common foe was typical of the German internal political and social structure between 1933 and 1945. At all levels and forms of organization throughout the Third Reich there were at least two organizations carrying out the same function in competition with each other, one being an organ of the state and the other of the Nazi party. There were many examples of this divergent organization throughout German life, but in the military counter-insurgency or internal field there were basically two groups carrying out the same role: these were the German army and the quite separate Nazi party, the NSDAP. Both operated against the resistance without inter-agency reference at any level, and frequently each operated in direct opposition to the other with continual bickerings and internal squabbles that could only aid their common quarry, the resistance.

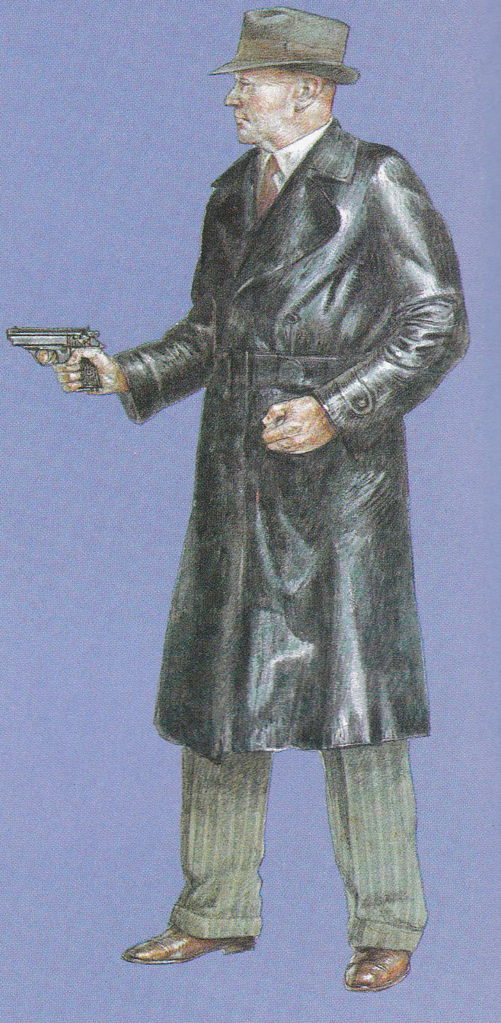
On the German army side there was the Abwehr, established as a counter-espionage organization but equally effective against internal insurgency. The Abwehr had two basic branches: the Feldgendarmerie who were military policemen complete with full uniform, standard issue side arms and distinctive brass gorgettes worn with a great deal of pride; and a plain-clothes branch known as the Geheime Feldpolizei (GFP or secret field police) who were frequently mistaken for their political counterparts operating under party control.

The party structure concerned with internal security was complicated to a high degree, with great scope for overlapping responsibilities. Controlled from on high by Heinrich Himmler was the SS, which controlled the Ordnungspolizei (Orpo) within Germany itself and the Sicherheitspolizei (Sipo) that operated wherever the Germans were situated outside Germany itself. The Sipo had two basic branches, the Kriminalpolizei who were supposed to act as a normal civil and criminal police force but who frequently became involved in counter-resistance operations, and the infamous Geheime Staatspolizei (Gestapo) who had the prime responsibility of arresting enemy agents but whose writ was extended to cover resistance workers. However, the role of the Gestapo overlapped with that of yet another organization, equally infamous, known as the Sicherheitdienst or SD, who acted as the party internal security service.

To the resistance fighter the various quarrelling factions arrayed against him were but one common enemy. All of them were devoted towards neutralizing him (or her) and his activities, and if any resistance worker fell into their hands the result was almost certain death, either rapid in front of a firing squad (uncommon) or long and lingering at the hands of the torture squads (all too common) who would attempt to obtain as much information as possible before the prisoner perished, or a journey to one of the many death or labour camps throughout the Reich where death was equally certain. Thus whenever the resistance fighter and any of the many counter-resistance groups came face to face there was almost always instant combat.

Not all resistance workers were able to carry arms all the time so if they were caught in any police sweep without a weapon they had no

Below: A Walther PPK-armed Gestapo member. Originally the secret arm of the Prussian state police, the Gestapo (Geheime Staatspolizei) came under the control of Himmler and the SS before the war, and became responsible for counter-espionage and counter-resistance work.



Above: On occasion, resistance to the German occupation flared into open warfare. A survivor of the 1943 Jewish uprising in Warsaw surrenders to the SS after just such an occasion. Many of the participants were to die horribly in the extermination camps as the Germans razed the ghetto in reprisal.

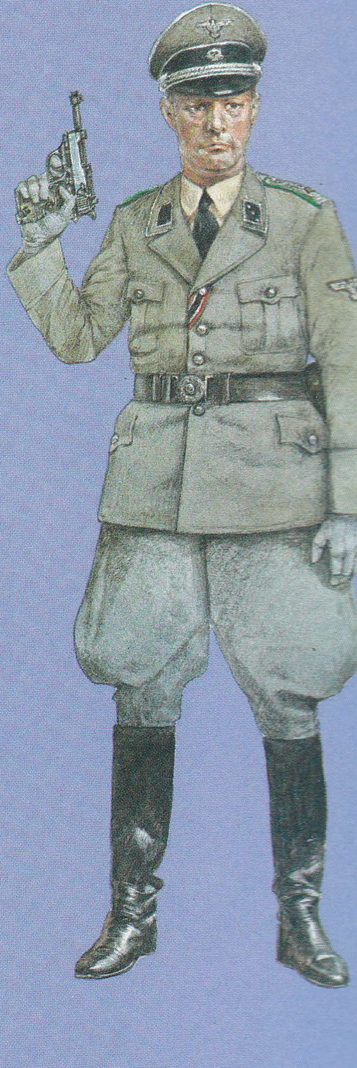
option but to evade detection by the usual means (i.e. evasion and trusting to luck). But if they were armed a shoot-out was the result. Although the various police groups often acted in concert with army units during some of their larger operations, many SD, Gestapo and GFP operations were carried out by small groups or squads who were assembled to 'take out' individuals or suspects. In this task they were frequently assisted by collaborators who were to be found in all countries and communities, but who in some cases were present in such numbers that they organized themselves into their own counter-resistance squads. Typical of these was the French Milice who often acted on their own account and were constantly active in detecting and countering resistance activities.

The weapons involved in this clandestine war, which was often conducted away from public gaze, were small arms (frequently pistols). There was no need for anything larger, although both sides sometimes used submachine guns and supporting army units had their rifles and machine-guns. Resistance fighters who had to stand and fight instead of going to ground as their training dictated often used Sten Guns, but more often relied on pistols such as the usual British Enfield and Webley revolvers or American M1911 automatics. Against these the various German police factions relied on a far more assorted array of pistols.

Typical of the German police pistols were, inevitably, the Walther PP and PPK. Designed and intended for police duties, these excellent pistols were ideal for the plain-clothes work carried out by the Gestapo and their counterparts, and could easily be concealed under normal civilian clothing. However, as always in the German supply network, demand outstripped supply so all manner of pistols were diverted into the police forces, be they German commercial models, captured French, Czech or Italian pistols and many others. Most used calibres such as 9-mm short, 7.65-mm or even the little 6.35-mm, but concealment was always more important than accessibility.

One aspect of the police-versus-resistance war was the use of assassination to eliminate particularly efficient or troublesome police operatives. For this purpose the British Special Operations Executive (SOE) and the American Office of Strategic Services (OSS) developed assassination pistols specifically to allow resistance workers to approach their target, fire without attracting attention and withdraw as quietly as possible. The simplest OSS weapon was the Liberator, a crude and simple device intended for mass use but which was apparently little used in Europe (most were used in the Far East and China). For use by specialized agents the OSS supplied a version of the 'High Standard' 5.56-mm (0.22-in) automatic pistol fitted with a long silencer. The combination of silencer and low-powered cartridge produced virtually no noise on firing. The SOE-developed pistol was totally silent. This was the little-known Welrod pistol, a single-shot purpose-designed weapon that fired a 7.65-mm cartridge. When fired the cartridge exhaust gases were absorbed by baffles all along the barrel. Once fired the pistol could be reloaded using a bolt device, and seven rounds were carried in the butt. Length of the pistol was about 22.9 cm (9 in). The Welrod was fearfully efficient in action, and the few that fell into German hands were examined in great detail. The Germans noted that the pistols carried no markings and were very well made, but the Germans apparently made no moves to produce their own equivalents.

Thus the clandestine war was fought out throughout Europe by determined police forces and equally determined resistance workers. It was a nasty little war that in the long run made little impact on the larger course of events, but to the losers in that war the results were just as final, for their reward was death.



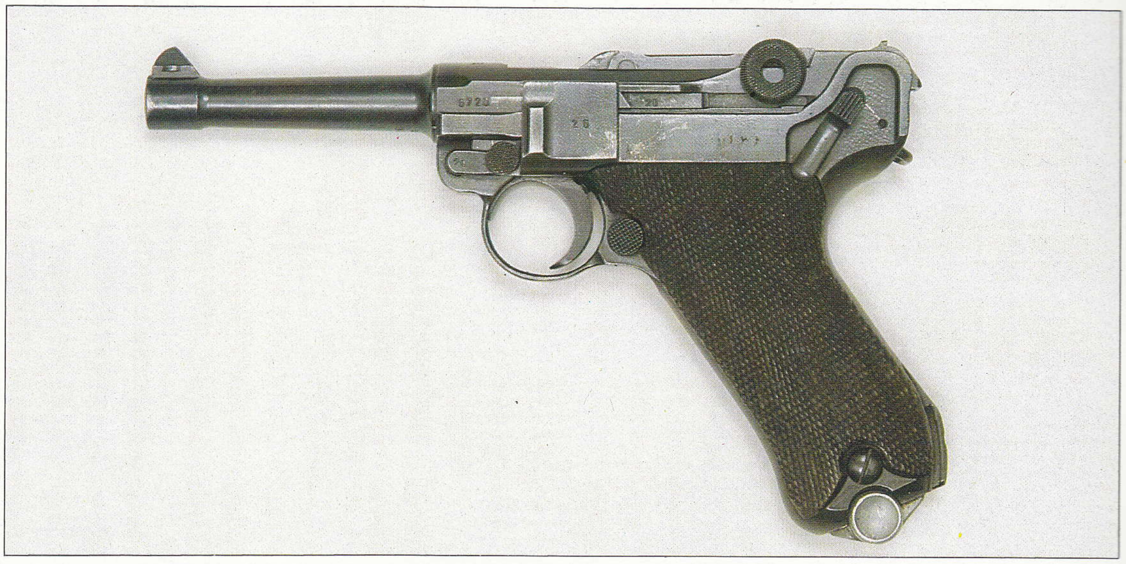
An Obersturmführer of the SD (Sicherheitsdienst) with his Walther P 38 at the ready. The SD, nominally an internal party security service, was responsible for much of the repression suffered in occupied Europe and, under the notorious Reinhard Heydrich, became feared by the German people as well.

Pistole P 08 (Luger)

The pistol that is now generally, but misleadingly, known as the **Luger** had its design origins in a pistol design first produced in 1893 by one Hugo Borchardt. A George Luger further developed this design and produced the weapon that bears his name to this day. The first Lugers were manufactured in 7.65-mm (0.301-in) calibre and were adopted by the Swiss army in 1900. Thereafter the basic design was adopted by many nations and the type is still to be encountered, for by now well over two million have been produced by various manufacturers and at least 35 main variants are known to exist, together with a host of sub-variants.

The **Pistole P 08** was one of the main variants. It was taken into German army service in 1908 (hence the 08) and remained the standard German service pistol until the Walther P 38 was introduced in 1938. The main calibre encountered on the P 08 was 9 mm, and the 9-mm (0.354-in) Parabellum cartridge was developed for this pistol. However, 7.65-mm (0.301-in) versions were made as well. The P 08 is and probably always will be one of the 'classic' pistols, for it has an appearance and aura all of its own. It handles well, is easy to 'point' and is usually very well made. It has to be well made for it relies on a rather complicated action using an upwards-hingeing toggle locking device that will not operate correctly if the associated machined grooves are out of tolerance. In fact it is arguable that this action is undesirable in a service pistol for as it operates it allows the ingress of dust and debris to clog the mechanism. In practice this was often not the case for the pistol proved to be remarkably robust. It was only replaced in service and production for the simple fact that it was too demanding in production resources, took too long to produce and required too many matched spare parts. It was late 1942 before the last 'German' examples came off the production lines and it was never replaced by the P 38 in German service. Since 1945 it has reappeared commercially from time to time and will not doubt continue to be manufactured for years to come.

The standard P 08 had a barrel 103 mm (4.055 in) long, and earlier variants such as the **P 17 Artillerie** model with a 203 mm (8 in) or longer barrel and a snail-shaped magazine holding 32 rounds were no longer service weapons between 1939 and 1945. Lugers were among the most prized of all World War I and II trophies, and many still survive as collector's pieces.



Above: The Pistole P 08, commonly known as the Luger, was one of the classic pistol designs of all time. It still has a definite aesthetic appeal in the slope of the butt and the general appearance, and is a pleasant pistol to fire. However, it was expensive to produce and was destined to be replaced.

Right: The P 08 in service with a section of house-clearing infantry during the early stages of the advance into Russia during 1941. The soldier with the pistol is armed with Stielgranate 35 grenades and is festooned with ammunition belts for the section MG 34 machine-gun.

The type continues to attract the eye and attention of all pistol buffs throughout the world, and the P 08 was and still is a classic.

Specification

Pistole P 08
Cartridge: 9 mm Parabellum
Length overall: 222 mm (8.75 in)
Length of barrel: 103 mm (4.055 in)
Weight: 0.877 kg (1.92 lb)
Muzzle velocity: 381 m (1,250 ft) per second
Magazine: 8-round box

Below: A Stug 111 with a short 75-mm (2.95-in) gun supports advancing infantry during an attack on the Voronez front during January 1943. Although the pistol being carried by the soldier on the right is blurred, it appears to be a P 08.

What use is a pistol in combat?

The pistol has been a factor in warfare almost from the invention of the firearm. In the early days, its use was confined to officers and cavalrymen, and with longer ranges between opponents becoming the norm it seemed that the inherent short range of the weapon meant that the use of the pistol in battle was coming to an end. Paradoxically, however, more and more soldiers were turning to the pistol as a personal weapon. Clearly it is of some use after all.

An easy answer to the often-posed question 'What use is a pistol in combat?' is 'not much.' The pistol, be it a revolver or automatic, has only a very limited range and at best (and in the hands of a trained marksman) it has very little other than nuisance value beyond a range of 40-50 m (45-55 yards). It is also a weapon that is very prone to be pointed in the wrong direction – it is relatively easy to keep a long weapon such as a rifle pointed towards an enemy, but all too easy to point a pistol at a friend in the heat of the moment. For such a small weapon, the pistol is quite demanding of industrial potential and skills, and even a simple example is not cheap when compared with, say, a much more lethal weapon such as a hand grenade. Another factor in combat is that the average projectile fired from a pistol has only a limited lethality and, although it may have a terrific impact at short ranges, it is not as lethal as a high-velocity projectile.

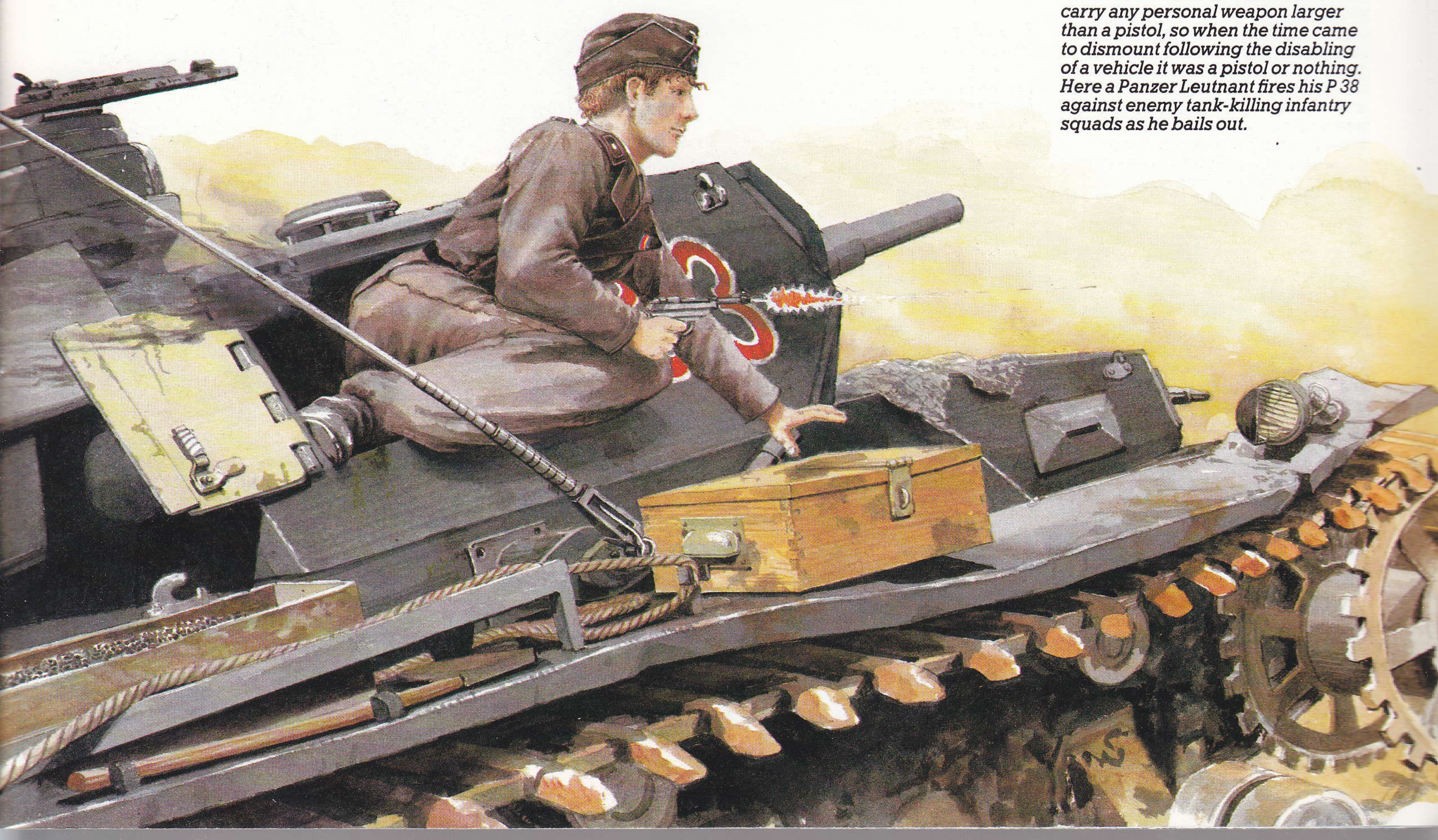
For all that, the handgun is still a much favoured combat weapon and even today soldiers venture into battle wearing pistols about their persons. There are two main reasons for this, and they can be oversimplified by being labelled 'convenience' and 'morale'.

The convenience factor is brought about by the simple fact that for many personnel on active service there is no alternative. There are numerous combat roles carried out by all manner of soldiers, airmen and sailors where it is quite simply impractical to carry any form of weapon larger than a pistol. Categories that come to mind without difficulty include tank crews, aircrew, frogmen and men carrying heavy equipment such as radio sets. They have no hands free to carry a weapon and very little space about the person or place of operations to stow anything larger than a pistol. On larger vehicles such as tanks or trucks it is possible to carry a sub-machine gun or carbine but on smaller vehicles this is not possible. Even so, at some stage or other of combat operations it may be necessary to leave the sheltering confines of the vehicle, and some sort of weapon is still required for self-defence or survival. The latter factor is particularly important for aircrew who may be forced down behind enemy lines. Under such circumstances there is no alternative to the pistol.

The morale factor may be subdivided into two aspects. One is that wearing or flourishing a pistol gives an air of authority. The other aspect relates to morale alone: the carrying of a weapon such as a pistol imparts a measure of self-confidence to the carrier. The air of authority aspect is easily understood, for anyone such as a military or other policeman pointing or holding a pistol is immediately regarded by most persons as someone in authority who should be obeyed. Thus a pistol becomes an important symbol when dealing with an unarmed or demoralized enemy, such as prisoners of war. The self-confidence factor is less easily explained but is one that is understood by anyone who is operating or travelling in an unknown or hostile environment. This fact was well understood by the German forces who had to live and work in the occupied territories during World War II; every servicemen had to be armed for virtually his entire waking existence. Pistols were an easy way to interpret armed status, and consequently the servicemen had the secure knowledge that some form of weapon was always to hand should it become necessary. This self-confidence factor may perhaps be overstated but it is a factor that is well known to anyone who has ever had to operate in an unknown territory or situation, and in modern war combat is very often not confined to an easily defined front line. Soldiers in rear areas are just as likely to come under attack from partisans or SAS-type units as their front-line counterparts are to come under attack from a known enemy.

There is one further reason why the pistol is still carried in combat, and that is perhaps an offshoot of the two factors already described. This is the carrying of pistols as a symbol of status, and perhaps this is the reason why so many staff officers far from the battle area strap pistols to themselves. Even so, many pistols carried by officers of staff rank are small-calibre weapons of very limited combat value and a far cry from the relatively large-calibre pistols carried by combat personnel.

There is one factor that has further limited the use of the pistol in combat, and that is that the factors listed above are as recognizable to an enemy as they are to the user. This was particularly true during World War I, when marksmen in the front-line trenches learned that attacking soldiers carrying pistols were more likely to be officers or senior NCOs and thus unit leaders. Picking them off first tended to reduce the combat efficiency of the unit concerned; it was not long before even the most hidebound officers learned to carry rifles that rendered them indistinguishable from their men. Their trouble was that once in the trench system the rifle was too cumbersome for the dangerous task of trench clearing. Close-quarter combat tasks such as trench clearing are to this day one aspect of combat where the pistol still has an important role to play. House clearing in urban warfare is a very similar situation. Here the short and handy barrel of a pistol can be rapidly turned in any direction and the small heavy bullets need little aiming at short ranges. If they strike a target at short range they are usually enough to disable, if not kill. It is true that a sub-machine gun would be better under such circumstances, but a sub-machine gun is not always available when needed, and if a soldier carries a pistol he has at least a weapon.



There is little room inside the confines of a tank for the crew to carry any personal weapon larger than a pistol, so when the time came to dismount following the disabling of a vehicle it was a pistol or nothing. Here a Panzer Leutnant fires his P 38 against enemy tank-killing infantry squads as he bails out.

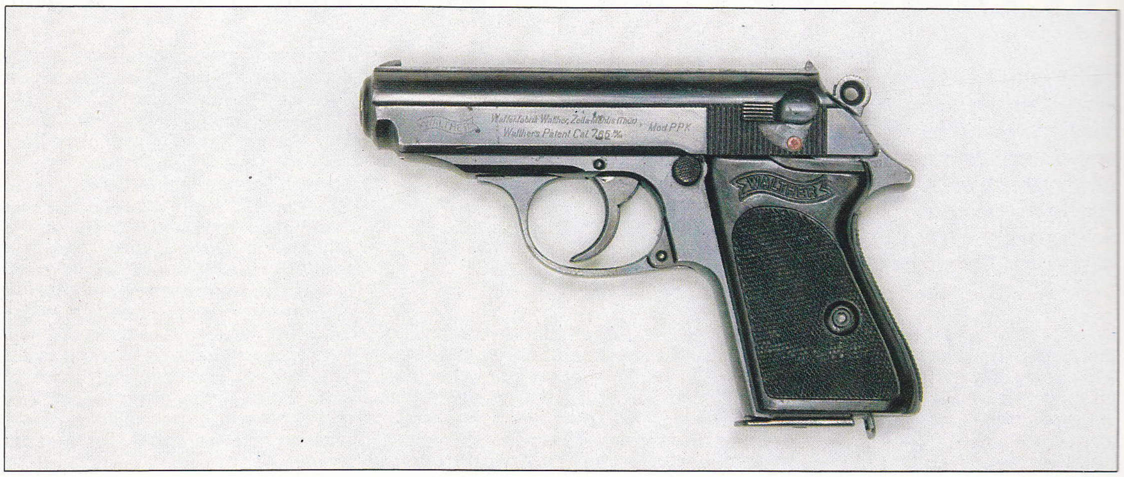
GERMANY

Walther PP and PPK

The **Walther PP** was first produced in 1929 and was marketed as a police weapon (PP standing for Polizei Pistole), and during the 1930s it was adopted by uniformed police forces throughout Europe and elsewhere. It was a light and handy design with few frills and a clean outline but was intended for holster carriage. Plain clothes police were catered for by another model, the **Walter PPK** (K standing for *kurz*, or short). This was basically the PP reduced in overall size to enable it to be carried conveniently in a pocket or under a jacket.

Although intended as civilian police weapons, both the PP and the PPK were adopted as military police weapons and after 1939 both were kept in production for service use. Each model was widely used by the Luftwaffe, and was often carried by the many German police organizations. Both were also widely used by staff officers as personal weapons. Both types could also be encountered in a range of calibres, the two main calibres being 9 mm short and 7.65 mm, but versions were produced in 5.56 mm (0.22 LR) and 6.35 mm. All these variants operated on a straightforward blowback principle, and more than adequate safety arrangements were incorporated. One of these safeties was later widely copied, and involved placing a block in the way of the firing pin when it moved forward, this block only being removed when the trigger was given a definite pull. Another innovation was the provision of a signal pin above the hammer which protruded when a round was actually in the chamber to provide a positive 'loaded' indication when necessary. This feature was omitted from wartime production, in which the general standard of finish was lower. Production resumed soon after 1945 in such countries as France and Turkey. Hungary also adopted the type for a while but production is now once more by the Walther concern at Ulm. Production is still mainly for police duties but purely commercial sales are common to pistol shooters who appreciate the many fine points of the basic design.

One small item of interest regarding the PP centres on the fact that it is now a little-known and rarely seen pistol used by the British armed forces as the **XL47E1**. The weapon is used for undercover operations where civilian clothing has to be worn and it is often issued to soldiers of the Ulster Defence Regiment for personal protection when off duty.



The Walther PP pistol was, and still is, one of the best small pistol designs ever produced. In German service it was used by various police organizations and by Luftwaffe aircrew.

Specification

Walther PP
Cartridge: 9 mm short (0.38 ACP), 7.65 mm (0.32 ACP), 6.35 mm (0.25 ACP), 0.22 LR
Length overall: 173 mm (6.8 in)
Length of barrel: 99 mm (3.9 in)
Weight: 0.682 kg (1.5 lb)
Muzzle velocity: 290 m (950 ft) per second
Magazine: 8-round box

Specification

Walther PPK
Cartridge: 9 mm short (0.38 ACP), 7.65 mm (0.32 ACP), 6.35 mm (0.25 ACP), 0.22 LR
Length overall: 155 mm (6.1 in)
Length of barrel: 86 mm (3.39 in)
Weight: 0.568 kg (1.25 lb)
Muzzle velocity: 280 m (920 ft) per second
Magazine: 7-round box

GERMANY

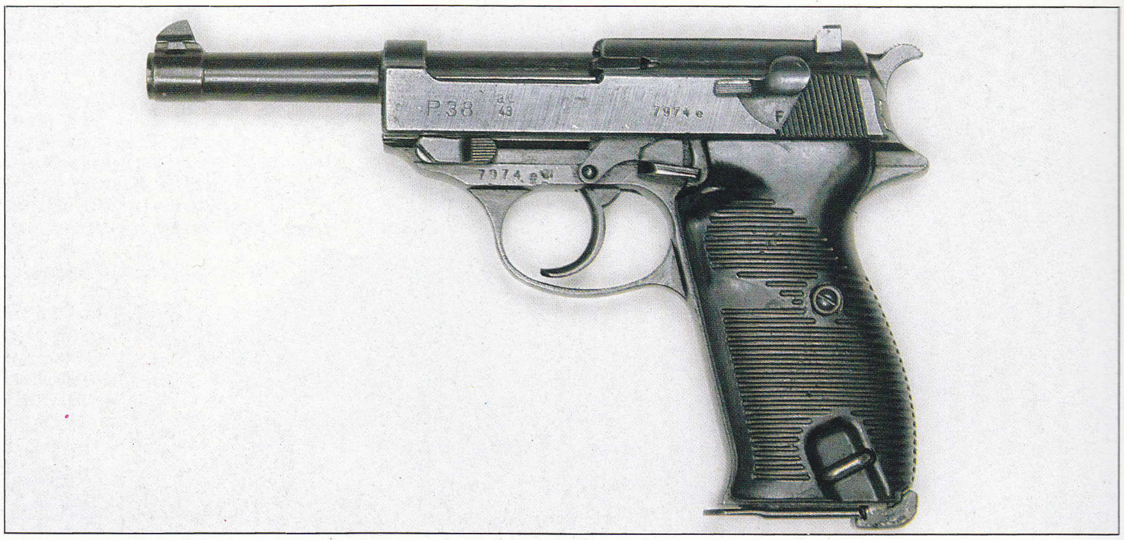
Walther P 38

The **Walther P 38** was developed primarily to replace the P 08, which was an excellent weapon but expensive to produce. After the National Socialists came to power in Germany in 1933 they decided upon a deliberate programme of military expansion into which the old P 08 could not fit. What was wanted was a pistol that could be quickly and easily produced but one that embodied all the many and various design features such as a hand-cocked trigger and improved safeties that were then becoming more common. Walther eventually received the contract for this new pistol in 1938, but only after a long programme of development.

Walther Waffenfabrik produced its first original automatic pistol design back in 1908 and there followed a string of designs that culminated in the PP of 1929. The PP had many novel features but it was intended to be a police weapon and not a service pistol. Walther consequently developed a new weapon known as the **Armee Pistole** (or **AP**) which did not have the protruding hammer of the PP but was calibred for the 9-mm (0.354-in) Parabellum cartridge. From this came the **Heeres Pistole** (or **HP**) which had the overall appearance of the pistol that would become the P 38. But the German Army requested some small changes to facilitate rapid production. Walther obliged and the P 38 was taken into German service use, the HP being kept in production in its original form for commercial sales. In the event Walther was never able to meet demand for the P 38 and the bulk of the HP production also went to the German armed forces.

The P 38 was (and still is) an excellent service pistol which was robust, accurate and hard wearing. Walther production versions, which were later supplemented by P 38s produced by Mauser and Spreewerke, were always very well finished with shiny black plastic grips and an overall matt black plating. The weapon could be stripped easily and was well equipped with safety devices, including the hammer safety carried over from the PP along with the 'chamber loaded' indicator pin. It was a well-liked pistol and became a war trophy only slightly less prized than the Luger P 08.

In 1957 the P 38 was put back into production for the Bundeswehr, this time as the **Pistole 1** (or **P1**) with a dural slide in place of the original steel component. It is still in production and has been adopted by many nations.



Even today one of the best service pistols available, the Walther P 38 was developed to replace the P 08 Luger but by 1945 had only supplemented it. It had many advanced features including a double-action trigger mechanism.

Specification

Walter P 38
Cartridge: 9 mm Parabellum
Length overall: 219 mm (8.58 in)
Length of barrel: 124 mm (4.88 in)
Weight: 0.960 kg (2.12 lb)
Muzzle velocity: 350 m (1,150 ft) per second
Magazine: 8-round box

The Walther P 38 in Action

Arising out of a Wehrmacht requirement for a modern replacement for the Parabellum system P 08 (the well-known Luger), the Walther P 38 first saw service in 1938. In modified form, the pistol is still in production for West German service nearly 50 years later.

When the first Walther P 38s were issued to their recipients during late 1938 it was something of a change from the elderly but well-liked P 08, Although one of the main reasons the P 38 had been accepted for service was the fact that it had been designed for ease of production, it was still full of good modern features that immediately attracted the attention of the troops who were trained to fire the pistol. One of the main attractions was the combination of an external hammer and the various safety mechanisms. The use of the external hammer meant that the weapon could be loaded, the safety applied and the hammer could then be lowered onto a block that prevented the firing pin striking the cartridge housed in the chamber. The only way to remove the block was by a deliberate pull on the trigger. Thus a fully loaded pistol could be carried in complete safety and when required the weapon was ready for use without the need to fumble with receiver slides or awkward safety catches. The 'loaded' indicator above the hammer was also much appreciated, for if a round was chambered the user could rapidly confirm the fact by feeling for the protruding pin above the hammer. This meant that the pistol did not have to be unloaded to check if the weapon was empty. Unfortunately this feature was regarded as something of a luxury, and was later removed when wartime production had to be increased to meet an ever-expanding demand for P 38s.

The P 38 was issued to the troops with its own leather holster for fixing to the standard service-issue leather belt. The holster carried not only the pistol but a spare magazine and a cleaning rod.

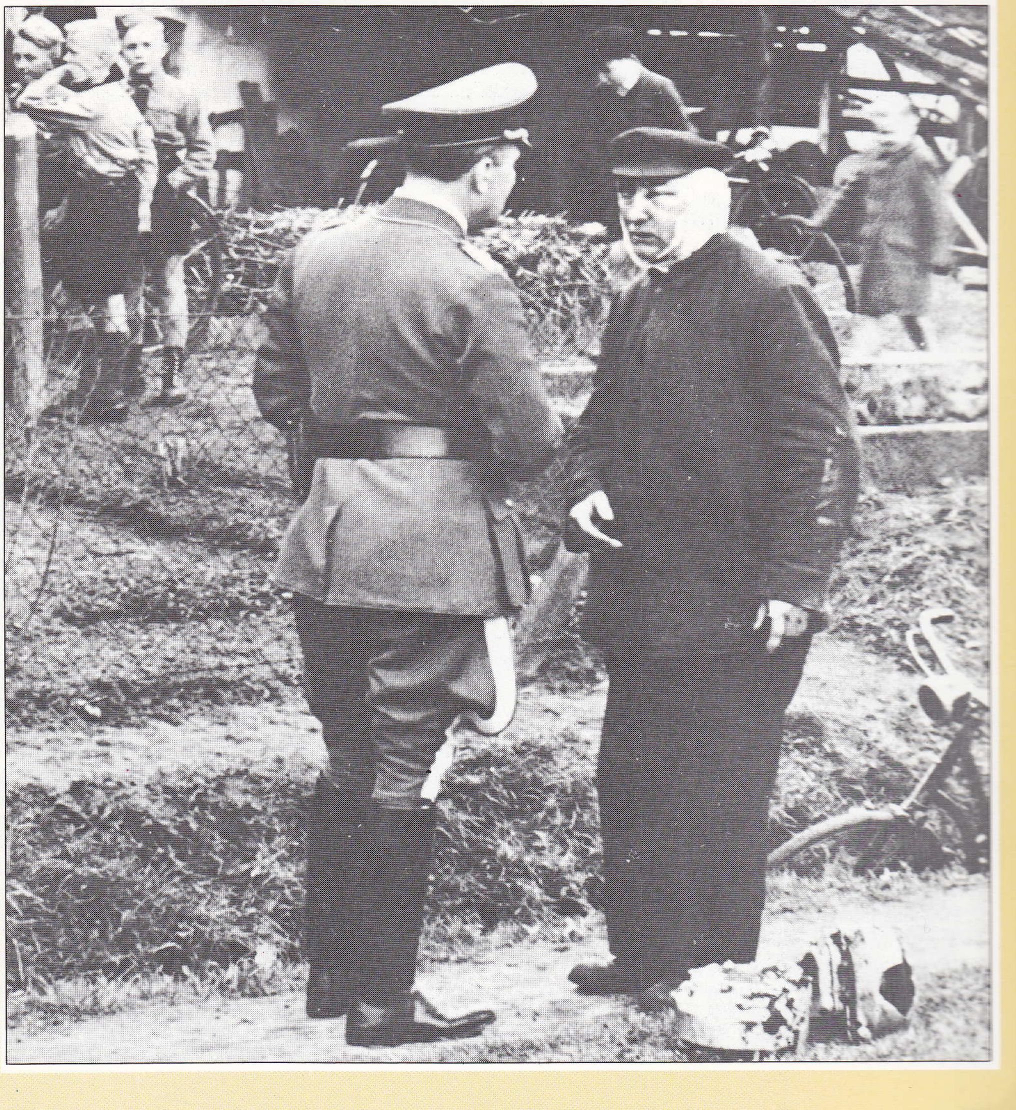
Service introduction

The first pistols were issued mainly to the new Panzer arm. In 1938 these men were the apple of Hitler's eye and he was expecting much from them. They had already seen a limited form of action in the take-overs of Austria and the Sudetenland, but they were not to be fully blooded until the September of 1939 when the Germans demolished the Polish forces in a matter of weeks. By that time the P 38 had been issued to other arms of the German forces. The main problem then was that there were quite simply insufficient numbers coming off the production lines. In the short term the production lines for the esssentially similar Walther HP was taken over for German military use. The HP had been the final development model for the P 38, but the P 38 had some of the finer points of the HP left off for ease of production. (Walther had plans to market the HP commercially and in fact managed to sell a batch of 2,000 to Sweden in 1939. These pistols were for long used by the Swedish army as the P/39.) But this short-term measure was somewhat overtaken by events. Instead of rounding off, the demands for more pistols and yet more pistols increased. The HP production line continued to operate alongside the P 38 line until well into 1944. By then new production lines had been set up by Mauser at Obendorf and the Spreewerke at Grottau. Even this was not enough, and component production lines were set up in the sequestered weapon factory at Brno in Czechoslovakia and the Fabrique Nationale plant at Liège in Belgium.

Production rises

As the production quantities expanded the general standard of manufacture declined when production short-cuts were introduced to speed up output. Items such as the loaded chamber indicator were left off, and markings were limited to the coded manufacturer's markings only (480 and ac were used for Walther production, byf and svw for Mauser output, and cyq for the Spreewerke examples). But even with these limitations the P 38 was still widely regarded as an excellent service pistol to the extent that the usual political infighting endemic within the Nazi war machine led to the Waffen SS attempting to take over the entire

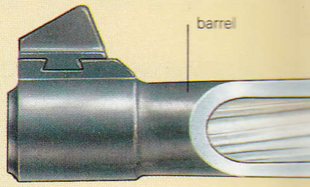
Above: The P 38 was introduced into service to replace the P 08 which, although an excellent pistol to fire and 'point' (as seen here in this photograph of a Luftwaffe officer on the firing range), was too expensive and slow to produce, whereas the P 38 could be manufactured quickly using modern production techniques.

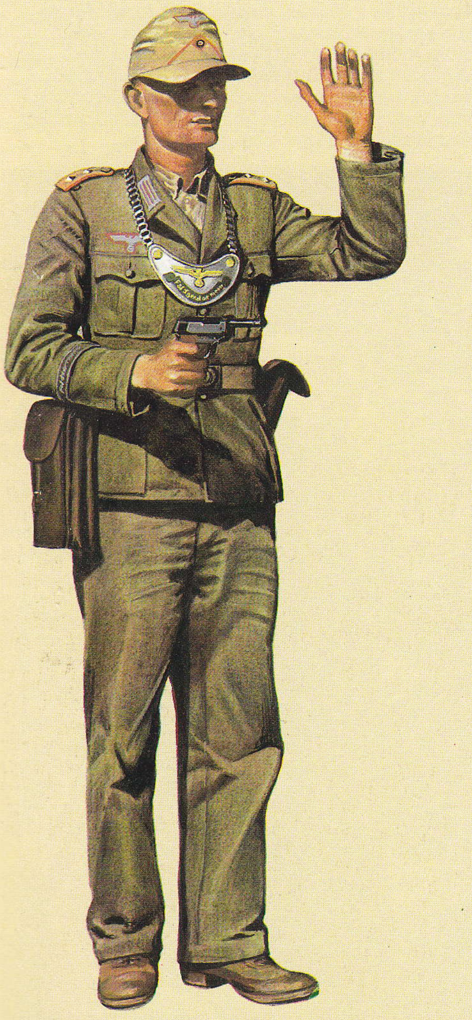


The Luftwaffe officer shown visiting the scene of the crash of his 80th victim (a Short Stirling) displays a notable difference between Allied and German practice in the wearing of pistols. German officers wore their weapons attached to the left of their service belts, drawing the pistol across the body. Allied service dress had pistols worn on the right, with the butt to the rear.

The Walther P 38 in Action

Left: May 1945, and soldiers of the Red Army celebrate the raising of the Red Flag over the Reichstag using an assortment of weapons including (from left) a PPS 1943 sub-machine gun, a P 38, a Mauser C/96 pistol and some PPSh sub-machine guns. Use of the captured pistols by Red Army Units was unusual.





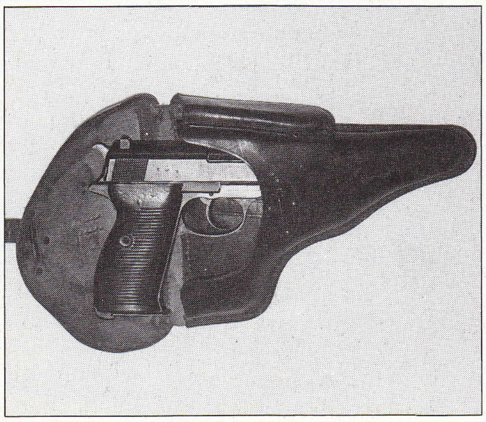
Above: An Afrika Korps military policeman of the Feldgendarmerie, armed with a P 38 pistol, wears the distinctive gorgette that identified the wearer as a policeman.

production for its own requirements. This it was never able to do, but at times whole batches earmarked for the army or navy were diverted to Waffen SS units.

The P 38 was never able to replace the P 08 in service before the war ended: the production lines quite simply could not meet the constant demands made for pistols. One reason for this state of affairs was that troops in all the occupied territories had to be armed whenever they were not actually on a military base or establishment. As the bulk of the troops involved had to travel to and from their billets or had to carry out various missions away from the security of a base they had to carry some form of weapon. In many cases this meant pistols, but in quantities the war planners had been unable to foresee. The only way out of this was to issue stockpiles of captured pistols or to take into use numbers of requisitioned civilian pistols. The result was a quartermaster's nightmare. Everyone wanted a P 38 or a P 08 but had to make do with what they got, and they got some very odd pistols. Troops found themselves carrying ancient ex-Russian Nagant revolvers, shiny little Mauser pocket pistols, imported Spanish automatics of dubious reliability and ancient French and Belgian revolvers with obsolete calibres.

Valued by the troops

Those troops that did get P 38s valued them highly. In action they proved to be very reliable, handy to hold and point, and when called upon to be accurate they were accurate. Two reasons for this accuracy were that the P 38 tended to sit well in the hand, and that the weight of the weapon was such that when aimed the pistol remained steady just that much more than a lighter pistol would have done. The trigger action was crisp and clean, so there was no undue drag between trigger-finger pressure and the actual shot. The action proved to be proof against the ingress of dust and dirt but when used on the Eastern Front one problem that was not confined to the P 38 came to light. This was partially the result of the thorough German maintenance training given to all recruits. They were taught to strip and clean their personal weapons every day. Before reassembly the moving parts were provided with a film of gun oil. During the winter months, however, temperatures were often so low that the oil froze solid, even when the pistol was inside a holster. The only solution was to leave the gun clean but free of oil, and to the credit of its manufacturers the P 38 continued to operate even in this condition.

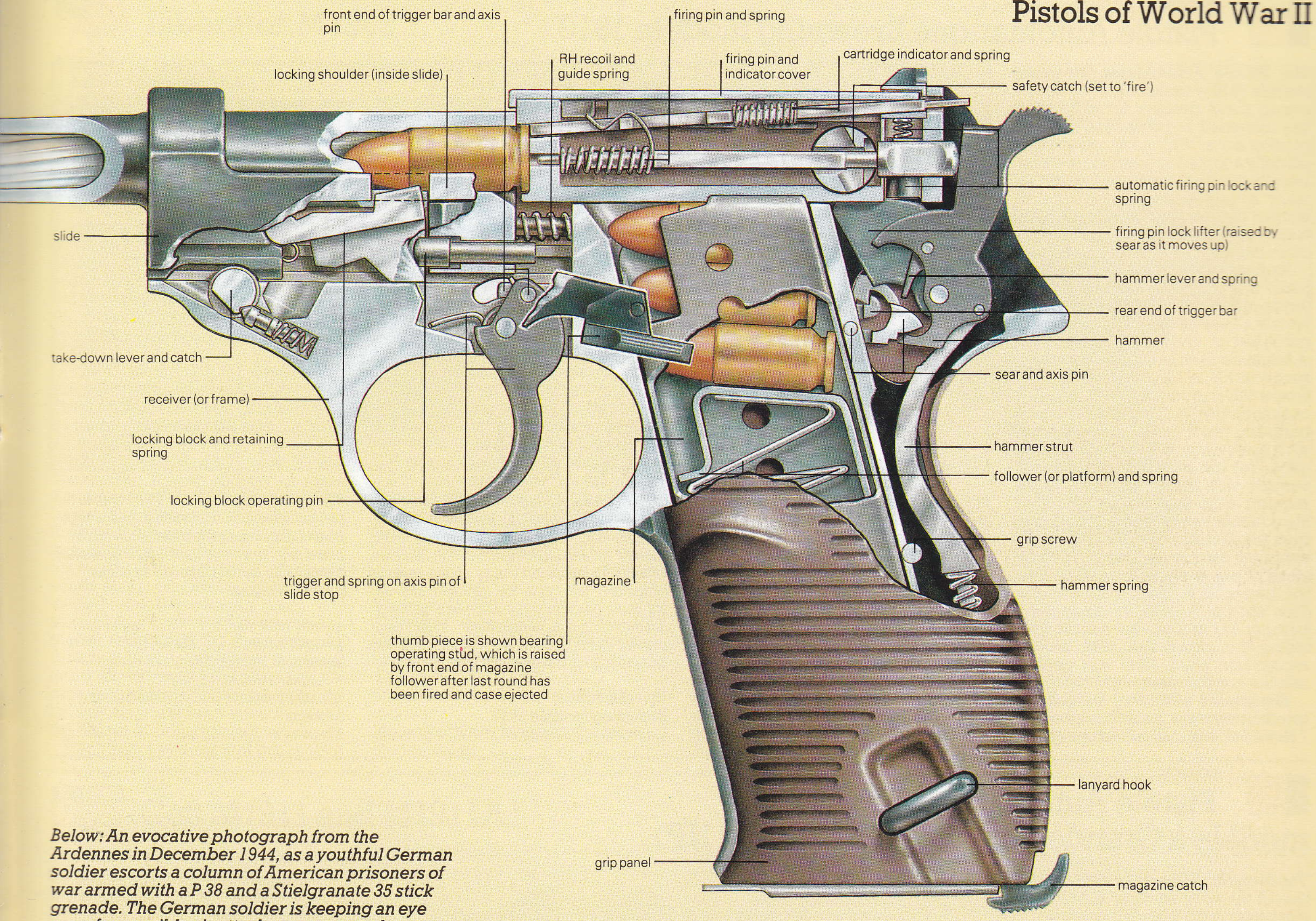


Right: A Walther P 38 together with its leather holster, which carried a spare magazine and sometimes a cleaning rod. The holsters were carried on the belt with the butt forward, in contrast to the usual Allied practice.

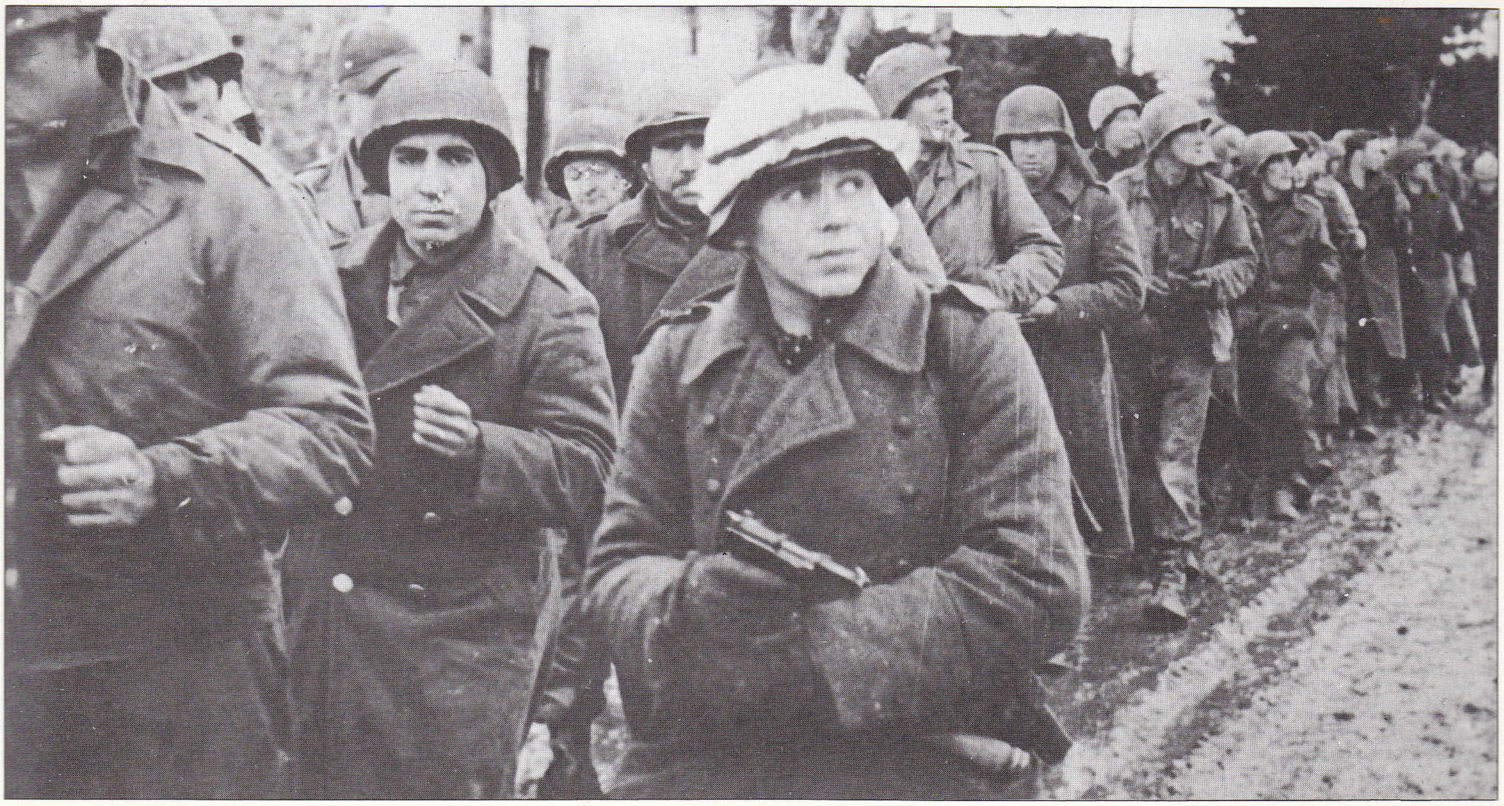
Still in production

In 1945 numerous P 38s became war trophies, and large numbers were often taken over by the victorious powers for their own use. Thus French army and Foreign Legion units in action in Indo-China often found themselves issued with P 38s, but this state of affairs did not last beyond the mid-1950s. By then the P 38 was once more being prepared for production, and in 1957 it was once more in production under Walther auspices, but this time slightly updated by the adoption of a dural receiver slide and the new designation Pistole 1 or P 1. This pistol is now the standard service pistol of the new Bundesheer, the West German army, and the type has even been exported for use by other armies such as Chile.

The P 38 and P 1 are both excellent service pistols and have been rated by many authorities as the best service pistol designs to have been produced in recent years, and certainly during the years of World War II. Some recent innovations on the pistol scene may well have dented that reputation somewhat, but the P 38 and the P 1 are both firm military favourites.

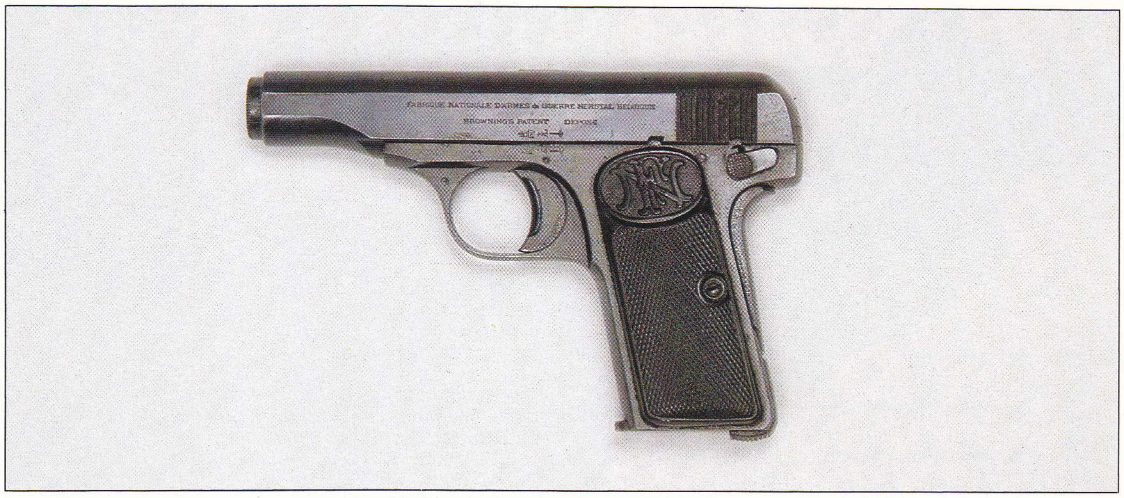

front end of trigger bar and axis pin
firing pin and spring
RH recoil and guide spring
firing pin and indicator cover
cartridge indicator and spring
locking shoulder (inside slide)
safety catch (set to 'fire')
automatic firing pin lock and spring
slide
firing pin lock lifter (raised by sear as it moves up)
hammer lever and spring
rear end of trigger bar
hammer
take-down lever and catch
sear and axis pin
receiver (or frame)
locking block and retaining spring
hammer strut
follower (or platform) and spring
locking block operating pin
grip screw
trigger and spring on axis pin of slide stop
magazine
hammer spring
thumb piece is shown bearing operating stud, which is raised by front end of magazine follower after last round has been fired and case ejected
lanyard hook
grip panel
magazine catch

Below: An evocative photograph from the Ardennes in December 1944, as a youthful German soldier escorts a column of American prisoners of war armed with a P 38 and a Stielgranate 35 stick grenade. The German soldier is keeping an eye open for possible air attack, as are several prisoners in the column.



BELGIUM

Pistole Automatique Browning modèle 1910



The Browning modèle 1910 was never officially adopted as a service pistol, but was nonetheless widely used and many of its design features were later incorporated in other pistol designs.

The **Pistole Automatique Browning modèle 1910** is something of an oddity among pistol designs, for although it has remained in production virtually nonstop since 1910, it has never been officially adopted as a service weapon. Despite this it has been used widely by many armed forces at one time or another and the basic design has been widely copied and/or plagiarized by other designers.

As the name implies, this automatic pistol was yet another product of the fertile mind of John Moses Browning. Nearly all the model 1910s have been produced at the Fabrique Nationale d'Armes de Guerre (commonly known simply as FN) at Liège in Belgium. The type is still in production in Belgium for commercial sales. The reason why this particular pistol should have achieved such longevity is now not easy to determine, but the overall design is clean enough, with the forward part of the receiver slide around the barrel having a tubular appearance. This results from the fact that the recoil spring is wrapped around the barrel itself instead of being situated under or over the barrel as in most other designs. This spring is held in place by a bayonet lug around the muzzle, providing the model 1910 with another recognition point. Grip and applied safeties are provided.

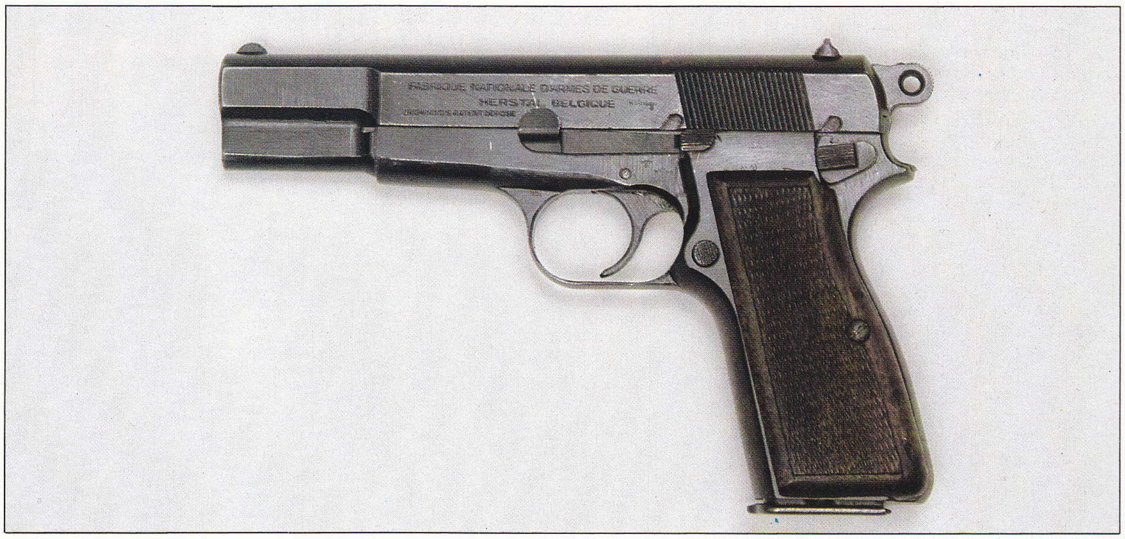
The model 1910 may be encountered in one of two calibres, either 7.65 mm or 9 mm short. Externally the two variants are identical, and each uses a detachable seven-round box magazine. As with all other FN products the standard of manufacture and finish is excellent but copies made in such places as Spain lack this finish. The excellent finish was continued with one of the few large-scale production runs for the model 1910. This occurred after 1940 when the German forces occupying Belgium required large numbers of pistols. The model 1910 was kept in production to meet this demand, the bulk of the output being issued to Luftwaffe aircrew who knew the type as the **Pistole P 621(b)**. Before that the model 1910 had been issued in small numbers to the Belgian armed forces, and many other nations obtained the type for small-scale use for their own military or police service. The numbers of model 1910s produced must by now be running into the hundreds of thousands.

Specification

Browning modèle 1910
Cartridge: 7.64 mm (0.32 ACP) or 9 mm short (0.380 ACP)
Length overall: 152 mm (6 in)
Length of barrel: 89 mm (3.5 in)
Weight: 0.562 kg (1.24 lb)
Muzzle velocity: 299 m (980 ft) per second
Magazine: 7-round box

BELGIUM

Pistole Automatique Browning, modèle à Grande Puissance (Browning HP)



The Browning GP 35 has been adopted by so many nations since its first appearance in 1935 that it must now be the most widely used of all pistols. It is remarkably robust, hard-hitting and reliable in use.

The **Browning HP** may be regarded as one of the most successful pistol designs ever produced. Not only is it still in widespread service, in numbers that must surely exceed those of all other types combined, but it has also been produced at many locations in many countries. It was one of the last weapon designs produced by John Browning before he died in 1925, but it was not until 1935 that the HP was placed in production by FN at Liège. From this derives the name which is generally given as the HP (High Power) or **Pistole Automatique Browning GP 35** (Grand Puissance modèle 1935). Numerous versions may be encountered, but they all fire the standard 9-mm Parabellum cartridge. Versions exist with box fixed and adjustable rear sights, and some models were produced with a lug on the butt to enable a stock (usually the wooden holster) to be fitted, allowing the pistol to be fired as a form of carbine. Other versions exist with light alloy receiver slides to reduce weight.

One factor that is common to all the numerous Browning HP variants is strength and reliability. Another desirable feature that has often proved invaluable is the large-capacity box magazine in the butt, which can hold a useful 13 rounds. Despite this width the grip is not too much of a handful, although training and general familiarization are necessary to enable a firer to get the best out of the weapon. The weapon uses a recoil-operated mechanism powered by the blowback forces produced on firing and has an external hammer. In many ways the action can be regarded as the same as that on the Colt M1911 (also a Browning design), but it was adapted to suit production and to take advantage of the experience gained in the design.

Within a few years of the start of production the Browning HP had been adopted as the service pistol of several nations including Belgium, Denmark, Lithuania and Romania. After 1940 production continued, but this time it was for the Germans who adopted the type as the standard pistol of the Waffen SS, although other arms of the German forces also used the weapon. To the Germans the Browning HP was known as the **Pistole P620(b)**. However, the Germans did not have the Browning HP all to themselves, for a new production line was opened in Canada and from there the Browning HP was distributed to nearly all the Allied nations as the **Pistol, Browning, FN, 9-mm HP No. 1**, large numbers being sent to China to equip the nationalist forces. After 1945 the type was put back in production in Liège, and many nations now use the weapon as their standard pistol. Various commercial models have been developed, and the type has even been adapted to produce a target-shooting model. The British army still uses the Browning HP as the **Pistol, Automatic L9A1**.

Specification

Browning GP 35
Cartridge: 9-mm Parabellum
Length overall: 196 mm (7.75 in)
Length of barrel: 112 mm (4.41 in)
Weight: 1.01 kg (2.23 lb)
Muzzle velocity: 354 m (1,160 ft) per second
Magazine: 13-round box

USA

Liberator M1942

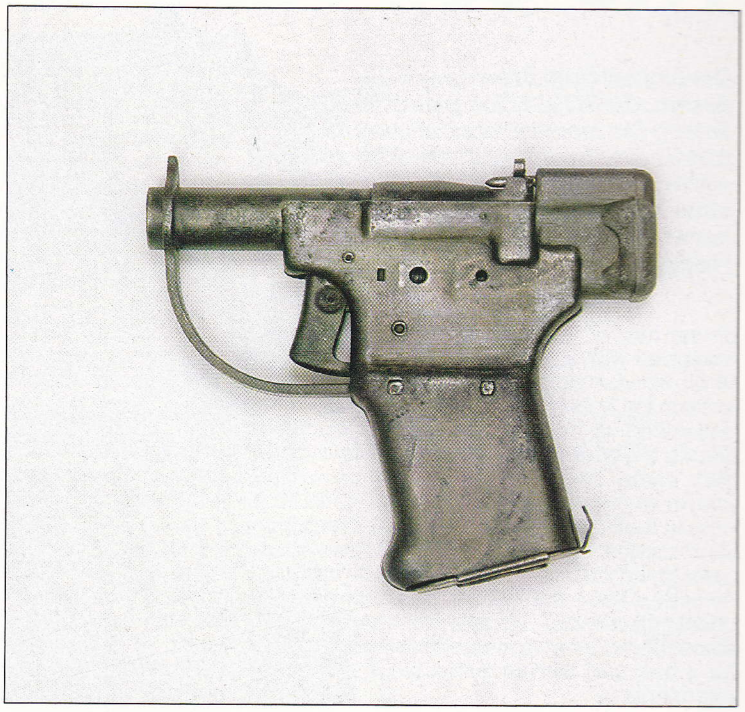
This very odd little pistol had its origins in the committee rooms of the US Army Joint Psychological Committee, who sold to the Office of Strategic Service the idea of a simple assassination weapon that could be used by anyone in occupied territory without the need for training or familiarization. The OSS took up the idea and the US Army Ordnance Department then set to and produced drawings. The Guide Lamp Division of the General Motors Corporation was given the task of producing the weapons, and the division took the credit for churning out no less than one million between June and August 1942.

The 11.43-mm (0.45-in) weapon was provided with the covername **Flare Pistol M1942**, but it was also known as the **Liberator** or the **OSS** pistol. It was a very simple, even crude device that could fire only a single shot. It was constructed almost entirely of metal stampings and the barrel was smoothbored. The action was just as simple as the rest of the design: a cocking piece was grasped and pulled to the rear; once back a turn locked it in place as a single M1911 automatic cartridge was loaded, and the cocking piece was then swung back for release as the trigger was pulled. To clear the spent cartridge the cocking piece was once more moved out of the way and the case was pushed out from the chamber by poking something suitable down the barrel from the muzzle.

Each pistol was packed into a clear plastic bag together with 10 rounds, and a set of instructions in comic strip form provided, without words, enough information for any person finding the package to use the pistol. There was space in the butt to carry five of the rounds provided but the pistol was virtually a one-shot weapon and had to be used at a minimal range to be effective. Exactly how effective it was is now difficult to say, for there seems to be no record of how these numerous pistols were ever employed or where they were distributed. It is known that some were parachuted into occupied Europe, but many more were used in the Far East and in China. The concept was certainly deemed good enough to be revived in 1964 when a much-modernized equivalent to the Liberator, known as the **'Deer Gun'**, was produced for possible use in Vietnam. In the event several thousands were made but were never issued, maybe because assassination weapons have a nasty tendency to be double-edged. Each Liberator pistol cost the American government just $2.40.

Specification

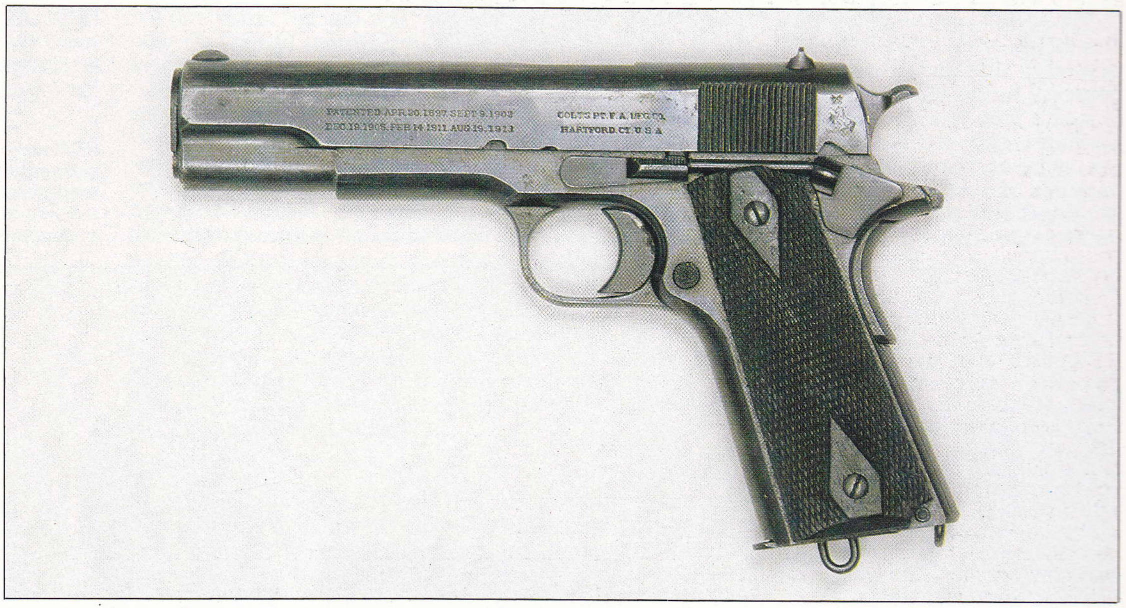
Liberator M1942
Cartridge: .45 ball M1911
Length overall: 140 mm (5.55 in)
Length of barrel: 102 mm (4 in)
Weight: 0.454 kg (1 lb)
Muzzle velocity: 336 m (1,100 ft) per second
Magazine: none, but space for five rounds in butt



The little Liberator M1942 was an assassination weapon pure and simple, and was produced as cheaply and easily as possible. The barrels were unrifled, there was no spent case ejector and the mechanism was crude to a degree. But they worked, and were used mainly in the Far East and in China.

USA

Colt M1911 and M1911A1



This pistol is the M1911 (the M1911A1 had several detail changes) and it is still the standard US Army service pistol after over 70 years in service. Firing a 0.45-in ball cartridge, it is still a powerful man-stopper, but is a bit of a handful to fire and requires training to use to its full potential.

The **Colt M1911** vies with the Browning HP as being one of the most successful pistol designs ever produced, for it has been manufactured in millions and is in widespread service all over the world some 70 years after it was first accepted for service in 1911. The design had its origins well before then, however, for the weapon was based on a **Colt Browning Model 1900** design. This weapon was taken as the basis for a new service pistol required by the US Army to fire a new 11.43-mm (0.45-in) cartridge deemed necessary, as the then-standard calibre of 9.65 mm (0.38 in) was considered by many to be too light to stop a charging enemy. The result was a series of trials in 1907, and in 1911 the **Pistol, Automatic, Caliber .45, M1911** was accepted. Production was at first slow, but by 1917 was well enough under way to equip in part the rapid expansion of the US Army for its new role in France.

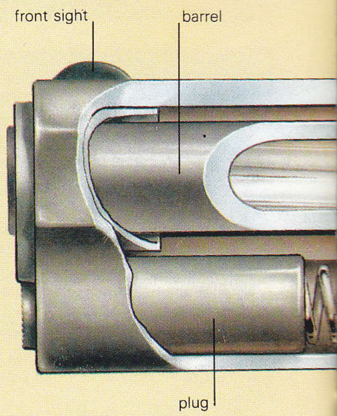
As the result of that battle experience it was decided to make some production changes to the basic design and from these came the **M1911A1**. The changes were not extensive, and were confined to such items as the grip safety configuration, the hammer spur outline and the mainspring housing. Overall the design and operation changed only little. The basic method of operation remained the same, and this mechanism is one of the strongest ever made. Whereas many contemporary pistol designs employed a receiver stop to arrest the backwards progress of the receiver slide the M1911 had a locking system that also produced a more positive stop. The barrel had lugs machined into its outer surface that fitted into corresponding lugs on the slide. When the pistol was fired the barrel and slide moved backwards a short distance with these lugs still engaged. At the end of this distance the barrel progress was arrested by a swinging link which swung round to pull the barrel lugs out of the receiver slide, which was then free to move farther and so eject the spent case and restart the loading cycle. This robust system, allied with a positive applied safety and a grip safety, make the M1911 and M1911A1 very safe weapons under service conditions. But the pistol is a bit of a handful to handle and fire correctly, and a good deal of training is required to use it to full effect.

The M1911 and M1911A1 have both been manufactured by numerous companies other than Colt Firearms and have been widely copied direct in many parts of the world, not always to very high levels of manufacture.

Specification

Colt M1911A1
Cartridge: .45 ball M1911
Length overall: 219 mm (8.6 in)
Length of barrel: 128 mm (5.03 in)
Weight: 1.36 kg (3 lb)
Muzzle velocity: 252 m (825 ft) per second
Magazine: 7-round box

The Colt M1911 and M1911A1



Developed from Browning's 1900 design, the M1911 Colt pistols are among the most successful combat pistols ever invented. Incredibly sturdy, with a stopping power unmatched by other semi-automatic pistols, the Colt has armed the US forces for more than 70 years.

At the turn of the century the US Army was equipped with a revolver that fired a 9.65-mm (0.38-in) cartridge that seemed effective enough for its task until the Americans became embroiled in operations in the Philippines. During the operations among the many islands they came up against a band of guerrillas known as the Moros who achieved some success in their limited action by mass charges at short ranges. Against such enemies the Americans found their pistol bullets were of little use, for even a Moro with two or three bullets in him could still continue his fanatical charge to the discomfort of his opponent. The soldiers called for a new and heavier projectile to stop such opponents.

For once the soldiers' requests were heeded at a high level. Starting in 1903 a series of trials was launched to discover the most suitable service calibre. The result was a new cartridge firing a 230-grain bullet with a calibre of 11.43 mm (0.45 in). By 1905 a Savage pistol was used for more trials, and in 1907 a Colt pistol appeared. In time this Colt pistol was taken into service (along with the new cartridge), and the M1911 was on the scene.

The M1911 was well blooded in action along the Mexican border before World War I started in 1914 and proved to be an excellent weapon. As the M1911 was an automatic pistol it took a little time for the more conservative soldiers to accept it, but once they appreciated the stopping power of the heavy bullet they took to it so much that even now many serving American soldiers still deem it the best service pistol in the world and will accept nothing else in its place. By the time the United States entered World War I in 1917 the M1911 was a firm favourite, but that was among the serving and long-term trained personnel. New recruits who encountered its weight and bulk took time to become accustomed to the M1911's lively recoil and took even longer to become proficient in its use. Service in France revealed the need for some slight improvements and these were incorporated into the M1911A1 introduced in 1921. Subsequent production models were based on the M1911A1 but the older M1911 continued in service and the model can still be encountered in service to this day.

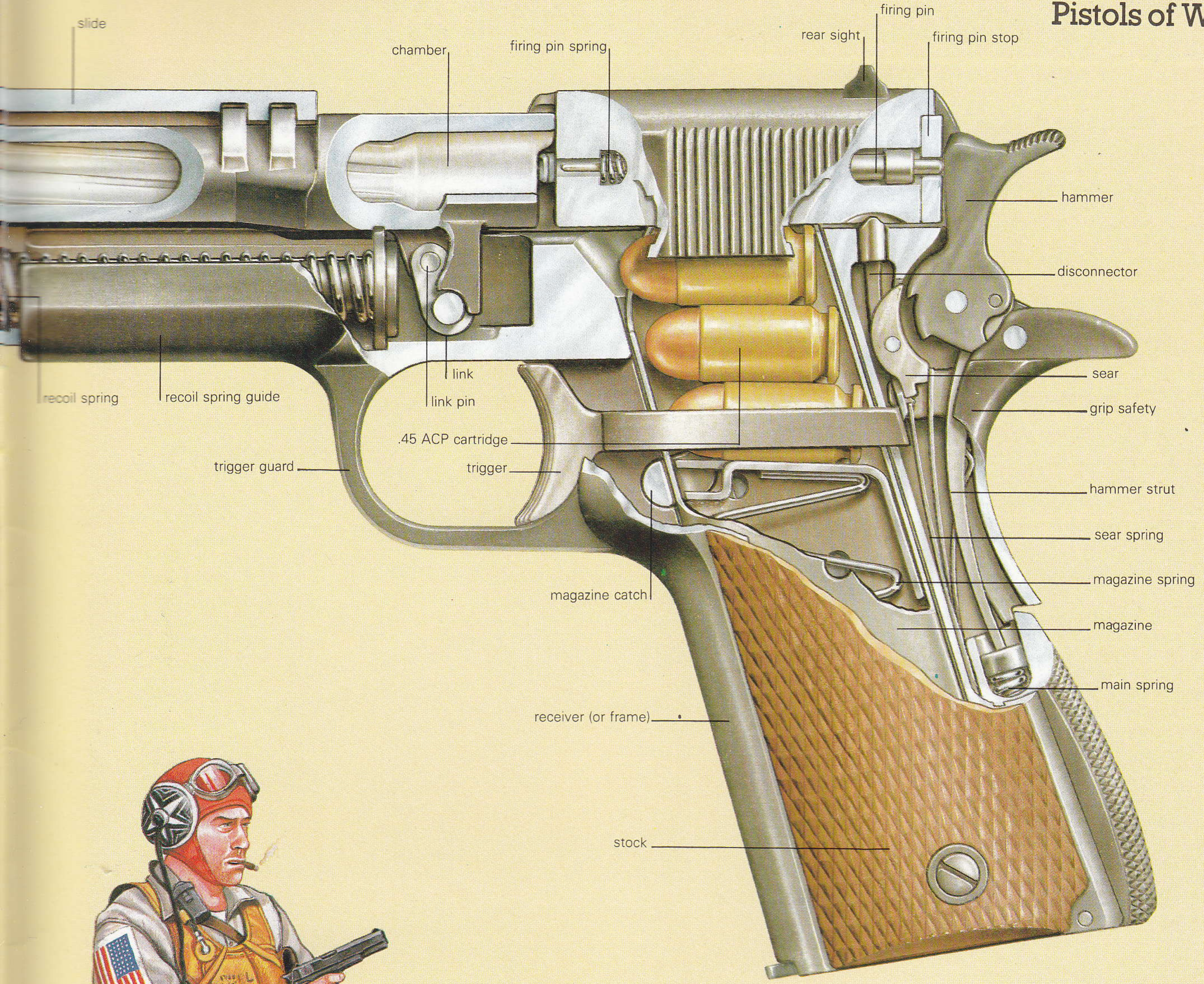
Between the wars

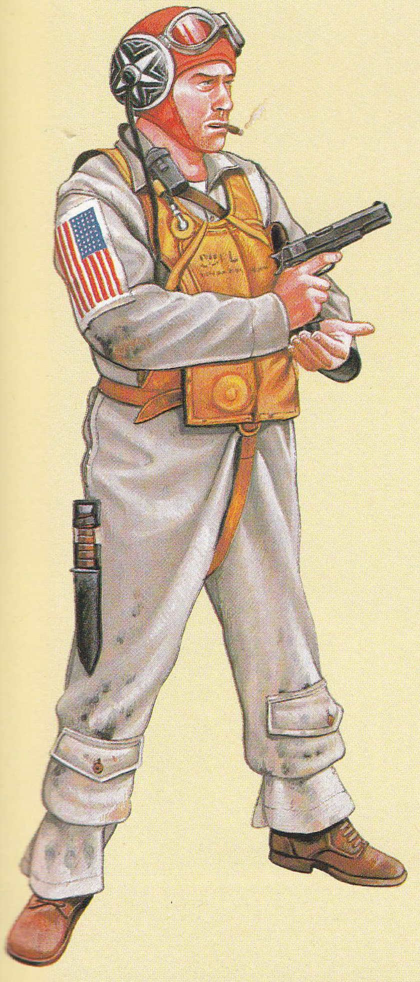
After World War I appropriations for more pistols fell away somewhat, and as there were no funds for further development and no call for any replacement weapon, by 1941 the M1911A1 was still the standard weapon in the US armed forces. However, as had been the case in 1917 there were not enough in the stockpiles to meet expected demand. Once again, as in 1917, numbers of converted revolvers with special clips to hold the rimless 11.43-mm (0.45-in) cartridges were pressed into use and various trials were made to improve the training of raw recruits to handle the weapon. Once again many recruits found the M1911A1 difficult to handle and all manner of training methods were tried in an attempt to overcome the problem. In the end it had to be accepted that the great bulk of the wartime recruits would never be able to use the pistol at ranges much over 18 m (20 yards), and that this was too short to make it worth retaining the M1911A1 as a service weapon. This fact led directly to the development of the 7.62-mm (0.3-in) M1 carbine, which was widely issued in place of M1911A1s to many front-line second-line personnel. Well over six million M1 carbines were produced, and this would under normal circumstances have led to an overall condemnation of the service pistol in general and the M1911A1 in particular. Despite this the M1911A1 soldiered on, no longer as a general front-line US Army weapon but more and more as a weapon carried by aircrew and for general military police duties.

It was for US Army Air Force use that one of the more unusual cartridges was developed for the M1911A1. The usual cartridges for the pistol were the 0.45 Ball M1911, the blank M9, the dummy M1921 and the tracer M26. To these was added the 0.45 High Density Shot M261, which was originally developed to allow the M1911A1 to be used as an aircrew survival weapon. It was loaded with a number of steel-shot projectiles that were meant to be fired at fish, so providing downed aircrew with a food supply. What happened before very long was that these cartridges were fired against personnel, proving to be so effective that the survival function took a back seat.

Other developments relating to the M1911A1 included a series of long barrels that were intended to improve the pistol's accuracy at increased ranges. They were never adopted for service but were involved in a rather odd

US Marines with guns ready board a half-submerged Japanese landing barge following an engagement at Peleliu. By 1944, troops had learned to be very wary when approaching apparently overcome Japanese positions.





Standard issue to US Navy pilots in the Pacific in 1944, the government Colt .45 would be the only firearm available to a downed flier in hostile territory, and could mean the difference between life and death.

attempt to convert the M1911A1 into a submachine gun. This project used a barrel 240 mm (9.45 in) long and an extended magazine holding 20 rounds. A butt was fitted to the pistol grip and a cooling device was added to the barrel. Changes were made to the internal mechanism to permit fully automatic fire, but although successful the whole project was terminated during 1942 when the M3 submachine gun was adopted.

Into the 1980s

After World War II the M1911A1 continued in service despite all the limitations that had been demonstrated. These limitations were largely ignored as the US armed forces wanted a pistol and the M1911A1 was ready to hand. The soldiers continued to sing its praises and largely chose to ignore the performance of the 9-mm (0.354-in) Parabellum pistols in use elsewhere. In fact the M1911A1 is still a fully established weapon in America and elsewhere, for over the years it has been adopted by many nations, mainly those who have come under American influence such as Nationalist China.

The last M1911A1 was produced in 1945, so stocks still in US Army use are now getting somewhat elderly. A recent survey revealed that of the 418,000 M1911A1s still in stock, every one had been overhauled extensively or rebuilt at least three times. Despite the favour bestowed upon the M1911A1 by the US military this is a situation that cannot be extended indefinitely, so the US Army now has a requirement for a new service pistol to be known as the XM9. This pistol will incorporate all the many innovations since the time that the M1911 was designed, and at long last the requested calibre is 9 mm (0.354 in). Between 1977 and 1980 a whole string of designs was used in a protracted series of trials to determine the new pistol, but the result was inconclusive. Several observers have stated that this might have been due to the fact that many of the pistols involved in the trials were not American in origin, but no doubt there was more to the outcome than that. One concrete result of the trials was that the existing M1911A1s should be rebuilt as 9-mm (0.354-in) pistols, but this proposal appears to have progressed little.

So, in the foreseeable future at least, the loved or hated M1911A1 will remain in American use. One day the XM9 will come, but for the foreseeable future the large number of companies that find it worthwhile to produce spares and components for the M1911 series will continue to prosper. The M1911A1 will no doubt continue to frighten the tyro with its hefty recoil and to alarm all at whom it is pointed, for the power of the 11.43-mm (0.45-in) projectile is as formidable today as it was when it was developed to stop the charging Moros.

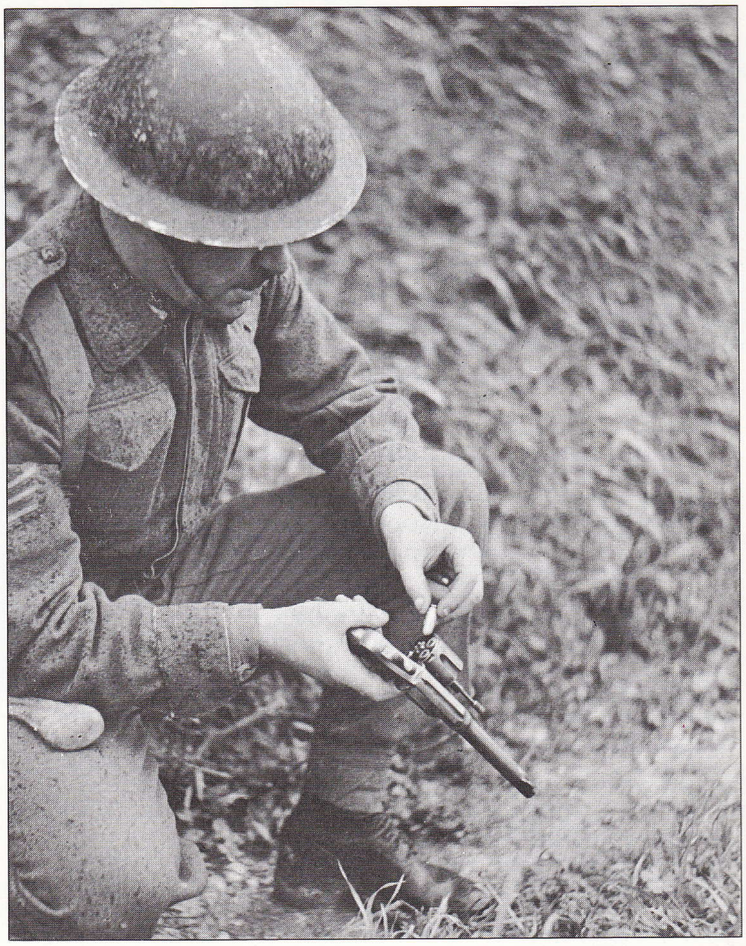
UK/USA

Smith & Wesson 0.38/200 Revolver

In 1940 the British army was in a desperate plight, with few men trained and even fewer weapons with which to arm them. Fortunately the United States, although not yet actually in the war, were at least sympathetic to the point where that nation would produce weapons for the British, and to British designs. The British planned huge increases in armed manpower levels and had to obtain weapons to match, and among these weapons were pistols. Smith & Wesson was willing to produce revolvers to a British specification, and the result was the pistol known either as the **Revolver .38/200** or the **Revolver No. 2 Cal.380**.

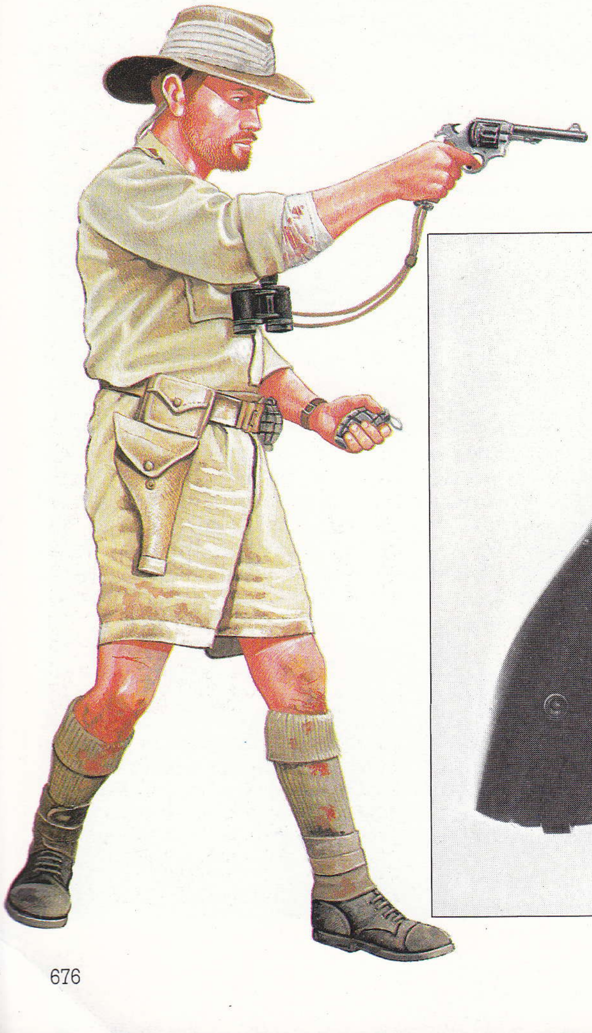
Whatever its designation, the pistol was a strictly orthodox design that was conventional in every respect. It was straightforward in design and operation, and embodied not only Smith & Wesson craftsmanship but British requirements, the resulting weapon being robust to an extreme. It was just as well, for the British pistol production lines were never able to catch up with demand and the British/American design more than filled the gap. These pistols were issued to all arms of the British forces, went to many Commonwealth forces as well, and were even handed out to various European resistance movements. Between 1940 and the time production ended in 1946 over 890,000 had been produced and issued. Many are still in service to this day, and it was well into the 1960s before some British units replaced them with the Browning HP.

The Revolver .38/200 fired a 200-grain bullet and used the classic Smith & Wesson chamber release to the left. Once the weapon was open, fired cartridge cases could be cleared with a sprung plunger rod. The trigger action could be either single- or double-action. The finish of the pistols was plain, and at times was neglected in order that the numbers required could be churned out. But the standard of manufacture never wavered: it was always good, and only the finest materials were used. Normally the pistol was carried in a closed leather or webbing holster which masked the hammer, so the snagging problem encountered with the Enfield revolver was not so acute, but a typical British touch was that the revolver was usually fitted to a waist or neck lanyard to prevent an enemy taking the pistol away from the firer at close quarters. The weapon appears never to have gone wrong, even when subjected to the worst possible treatment.



Above: A Canadian sergeant loads a Smith & Wesson 0.38/200 revolver. Empty cartridge cases were ejected by moving out the cylinder to the left and pressing a plunger normally under the barrel. All six spent cases were ejected together to allow each chamber to be reloaded one at a time, as seen here.

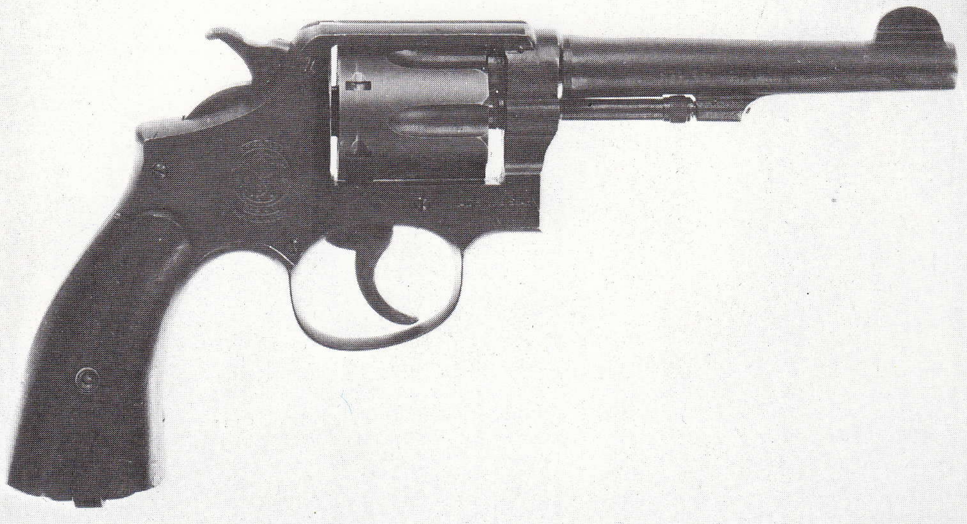
Below: A New Zealand officer armed with a Smith & Wesson 0.38/200 revolver during one of the campaigns in the desert. The revolver is being worn with the lanyard in the 'correct' position around the neck, but many preferred to wear it around the waist to prevent strangulation by an enemy in close-quarter combat.



Specification

0.38/200 Revolver
Cartridge: 0.380 SAA ball (9.65 mm)
Length overall: 257 mm (10.125 in)
Length of barrel: 127 mm (5 in)
Weight: 0.880 kg (1.94 lb)
Muzzle velocity: 198 m (650 ft) per second
Chamber capacity: 6 rounds

Below: The Smith & Wesson 0.38/200 revolver was an alliance of American workmanship and British combat experience that produced a robust and reliable pistol with no frills. Made from the very finest materials the finish was sometimes neglected to speed production, but manufacturing standards were never lowered.



Revolver versus Automatic

Pistols are important to soldiers who have to operate in confined spaces, and to police officers who require an easily-concealed weapon. But in looking for the right sort of pistol, does one look for reliability or rate of fire? Is concealment necessary, or is a powerful round to be used? How many shots are going to be required before reloading? All these points and more must be considered when deciding on an individual weapon.

In anti-partisan and prisoner of war collecting operations a pistol was a handy weapon. Here a German soldier armed with a P 08, a Panzerfaust anti-tank weapon and numerous stick grenades, still has one hand free to search for hidden weapons or booty while a colleague stands guard with a MG 34 machine-gun during operations in the Soviet Union, 1944.

To this day the design of hand-held pistols is divided into two main categories: revolvers and automatics. While the single-shot pistol is still around its use is now mainly confined to target-shooting and some very specialized roles and it now has no place in military arsenals. But the contest between revolver and automatic is one that still causes argument even though it has been going on for nearly a century.

A revolver is a pistol in which the ammunition is carried in a number of chambers machined into a revolving block. These chambers are brought mechanically into line with the barrel and hammer element of the trigger mechanism for firing. On the weapon generally known as the automatic pistol (a misleading term, as it should strictly speaking be termed a semi-automatic or self-loading pistol) the forces produced on discharging the loaded cartridge are employed to eject the spent cartridge case and load another round ready for firing. On the automatic this is generally accomplished by employing a variant of the blowback principle to push a receiver slide to the rear to carry out these operations. The ammunition is carried in a detachable box magazine in the pistol butt and delivered into the path of the slide by spring pressure (there are variations on this theme but the butt-position box magazine is now almost universal), and the weapon is left cocked ready for another pull of the trigger.

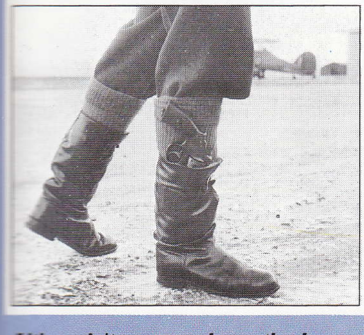
As of old, the basic argument is still about which system is best, revolver or automatic? Both systems have their devotees and both weapons have advantages and disadvantages (and those who will point these out) but to a large extent the question has long been solved in the most pragmatic manner possible: the military tend towards the automatic while police forces use the revolver. Of course this is an oversimplification; it is rare these days to find any military organization that uses a revolver design, but many police forces do indeed use automatics.

The first multi-shot hand-held weapons were revolvers. When they first appeared during the mid-19th century they were able to benefit from the improvements in machine tooling that were beginning to appear, but the main reason for their introduction was the appearance of the metal-cased cartridge. The revolving cylinders could hold any number of cartridges, but most designers settled on six and this number has remained constant to this day. Over the years the revolver settled down into a classic form, most designs having the revolving chamber either swung out for reloading or exposed by the breaking open of the frame (usually down but sometimes up) for reloading. The spent cases are ejected either by an automatic system or by manual depression of a plunger. The designs also settled down to become very robust and generally speaking very simple. Here lies the main attraction of the revolver, for it enables the weapon to be used by personnel after only a minimum of training. But this relates only to the handling; aiming and firing the pistol accurately is quite another matter, and here there is virtually no difference between the revolver and automatic as both need training and application to use them to best effect. This is especially true when the revolver uses a double-action trigger mechanism, i.e. one that relies upon the trigger action alone to raise and allow the hammer to fall. The effort of this action is such that holding the pistol steady is made very difficult when the trigger is pulled. Those pistols on which the hammer can be cocked by hand and released only after a slight trigger pull are potentially more accurate. Where the revolver, in theory at least, does score over the automatic is reliability: there are far fewer moving parts and the firer can be almost 100 per cent certain that when he pulls the trigger the weapon will fire. Another combat point is that it is very easy to see how many rounds are left to be fired by simply looking at the cartridges in the chamber.

The automatic pistol has by now been developed to the point where it is as reliable as the revolver, but it must immediately be admitted that there are more moving parts and some areas where even the slightest trouble will cause a jam. A favourite and oft-quoted example is the magazine feed lip area where even slight distortion can cause ammunition feed problems (some designs overcome this by having the lips machined into the receiver). The automatic also has to have items the revolver does not need, such as a trigger-mechanism disconnecting device activated as the receiver slide moves to the rear on firing; so there are more parts to break or go wrong. The sliding parts of the receiver have to be machined to quite tight tolerances and these tolerances can become affected by the ingress of dirt and debris. But in practice this rarely seems to happen except under extreme conditions (the revolver is usually less prone to the effects of debris). When it comes to ammunition-carrying capacity the automatic has the lead. The detachable box magazines can usually hold at least seven rounds and often more (the Browning HP can hold 13) but to see how many rounds are left after a period of firing requires the removal of the magazine for examination. Generally speaking the rate of fire possible with an automatic pistol is higher than that of a revolver. In average hands, three rounds can be fired from an automatic in what is often less than half the time needed for a double-action revolver.

There is also the question of bulk. Revolvers are generally larger and heavier than automatics and are thus 'handier' to use, and automatics are always slimmer than an equivalent revolver. This makes them easier to conceal and to wear in the close confines of military vehicles or aircraft.

The factors that ultimately decide the issue are ease of maintenance and reliability; the automatic is more demanding of care and attention than a revolver, and in theory the revolver is the more reliable. Perhaps the easiest way out of the argument is to say that even today the pistol consumer world is still split between revolver and and automatic, with the automatic numerically in the lead but far from being a clear winner.



Although it appeared unorthodox, the carrying of pistols in aircrew boots was common practice. Here an old 0.45-in Smith & Wesson revolver is being 'carried' by a Meteorological Flight pilot. Since these 'met' aircraft were usually unarmed, it was the pilot's only weapon.

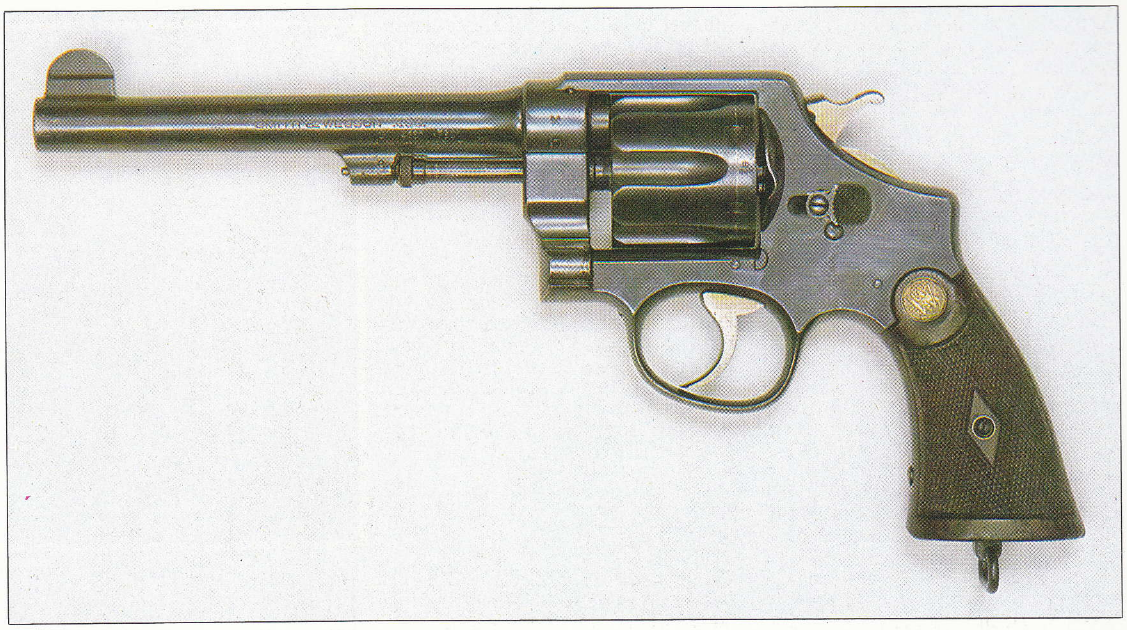
A German grenadier sergeant leads a patrol. German issue of pistols was much more extensive than in Allied armies, as occupying soldiers required personal means of defence. Given the choice, the German soldier would opt for a modern P 38 or (as here) the trusty old P 08 Luger.

Among the masses of Lend-Lease material that arrived in the United Kingdom during 1942 was this batch of Smith & Wesson 0.38/200 revolvers. Still in their wrappings, the revolvers are counted and checked by members of the ATS on the dockside.

The GI's dream! Back at home base an American soldier proudly displays that most prized of all war trophies, a 9-mm P 08 Luger. Even in 1944 and 1945 a GI would part with large sums of money for a Luger, and the pistol is still one of the most avidly collected of service pistols in any condition.

USA

Smith & Wesson M1917



When the United States entered the war in 1917 there were not enough pistols to arm the gathering throngs of recruits. The Smith & Wesson M1917 was rushed into production after being adapted to fire the standard 0.45-in cartridge and was produced in large numbers.

During World War I the United Kingdom placed sizable orders in the United States for weapons of all types, and among these was one placed with Smith & Wesson of Springfield, Illinois, for the supply of military revolvers with a calibre of 11.56 mm (0.455 in), the then-standard British pistol cartridge. Large numbers of these were supplied, but after the USA had entered the war in 1917 it was realized that large numbers of pistols would be needed to arm the enlarged US Army, and that the output from the Colt M1911 production line would be insufficient to meet the requirements. As a direct result the Smith & Wesson contract was taken over for the American forces, only for a new problem to crop up once the pistol production had been adapted to the American 11.43-mm (0.45-in) calibre.

Nearly all pistol ammunition produced in 1917 was for the M1911 automatic pistol and was thus rimless. Using rimless ammunition in a revolver chamber posed several problems as revolver cartridges are normally rimmed. Hence a compromise solution was adopted in the form of three M1911 cartridges being held in 'half-moon' clips to keep the cartridges from slipping too far into the revolver chambers when loaded. After firing the spent cartridges could be ejected in the normal way together with their clips and the clips would be reused if necessary. This solution was taken into US Army service and the pistols subsequently saw service in France and elsewhere.

The **Revolver, Caliber .45, Smith & Wesson Hand Ejector, M1917**, as the pistol was subsequently designated, was a large robust weapon that was completely orthodox in design, operation and construction, apart from the use of the three-round clips. The revolving chambers swung out to the left for loading and case ejection, and the action was either single or double. Like many other pistols of its type, the M1917 was extremely robust and had already been well accepted by the British army before the US Army took over the type. The British were to use it again in 1940 when large numbers were sent over for Home Guard and Royal Navy use.

Colt Firearms also produced a very similar revolver to the Smith & Wesson weapon, as the **Revolver, Caliber .45, Colt New Service, M1917**. Total production of both was over 300,000 and Brazil purchased a further 25,000 in 1938. Many US military police units were still using the type as late as 1945.

Specification

Smith & Wesson M1917

Cartridge: .45 ball M1911

Length overall: 274 mm (10.8 in)

Length of barrel: 140 mm (5.5 in)

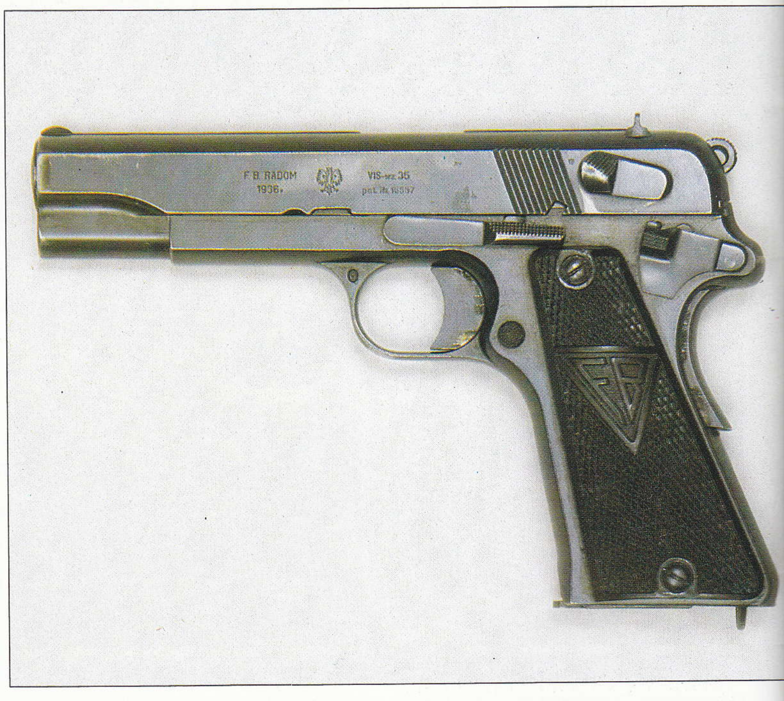
Weight: 1.02 kg (2.25 lb)

Muzzle velocity: 253 m (830 ft) per second

Chamber capacity: 6 rounds

POLAND

Pistolet Radom wz.35



The Radom wz.35 was a sound and reliable pistol of entirely conventional design that was first produced in Poland in 1935. After 1939 it was produced in some numbers for the German forces and thus many now seen carry German markings. Featuring some of the best Colt and Browning features plus a few Polish touches, the Radom was an excellent service pistol.

By the early 1930s the Polish army had a large number of pistol types in service, and wished to standardize on one particular type. Consequently an all-Polish design emerged and was put into production at the Fabryka Radom. This weapon became the standard Polish service pistol as the 9-mm **Pistolet Radom wz.35** (wz. stands for *wzor*, or model).

The Radom wz.35 was a combination of Browning and Colt design features with a few local Polish touches. In operation and use it was entirely conventional, but it lacked an applied safety and used only a grip safety, what appeared to be the applied safety catch on the left-hand side of the receive being only a catch used when stripping the pistol. The ammunition used was the 9-mm Parabellum, but firing this rather powerful round from the Radom was no great problem as the bulk and weight of the pistol was such that the firing stresses were absorbed to a remarkable degree. This weight and bulk made the Radom a better-than-average service pistol as it was able to cope with all manner of hard use, a fact improved by the high standards of manufacture, materials and finish employed until 1939.

In 1939 the Germans overran Poland and took over the Radom arsenal complete with the pistol production line. Finding the Radom wz.35 a thoroughly serviceable weapon the Germans adopted the design as a service pistol and kept it in production for their own use under the designation **Pistole P 35(p)**. However, the Germans' requirement for pistols was so great that to speed production they eliminated some small features and reduced the overall standard of finish to the extent that 'German' Radoms can be easily identified from the earlier 'Polish' versions by their appearance alone. The Germans kept the Radom in full-scale production until 1944 when the advancing Red Army destroyed the factory.

When the new Polish army was re-established after 1945 it adopted the Soviet TT33 as its new standard pistol and the Radom passed into history. Many are still around as collector's items, for the bulk of the German production went to the Waffen SS and was marked appropriately. Thus these pistols have an added collection value for many pistol buffs. Quite apart from this, the Radom wz.35 was one of the better service pistols of the war years and would continue to make a very serviceable sidearm to this day.

Specification

Radom wz.35

Cartridge: 9-mm Parabellum

Length overall: 197 mm (7.76 in)

Length of barrel: 121 mm (4.76 in)

Weight: 1.022 kg (2.25 lb)

Muzzle velocity: 351 m (1,150 ft) per second

Magazine: 8-round box

CZECHOSLOVAKIA

Automaticky Pistole vz.38 (CZ 38)

By the time that the German army marched into Czechoslovakia in 1938 and 1939 the Czech nations had evolved into one of the most industrious and innovative armaments manufacturers in all Europe. Pistols were one of the many weapon types produced, mainly at the Ceska Zbrojovka (CZ) in Prague, and from there emanated a string of excellent designs that included the vz.22, 24, 27, and 30 (vz. stands for *vzor*, or model). These pistols all fired the 9-mm (0.354-in) short cartridge and had many features in common with the Walther pistols of the period, but in 1938 came a pistol that bore no relation to anything that had been produced before.

The new pistol was the **CZ 38** (otherwise known as the **Automaticky Pistole vz.38**), and by all accounts this was not one of the better service pistols of the time. It was a large automatic weapon using a simple blowback mechanism, but it fired the 9-mm (0.354-mm) short cartridge even though its size and weight could have accommodated a more powerful round. One feature that was unusual and outdated even at that time was that the trigger mechanism was double-action only (it could be fired only by using the trigger to cock and release the hammer) while most other actions of the time used an external hammer that could be cocked by hand. This double action required a long and heavy trigger pull, so accurate aiming of the weapon was very difficult. One good feature of the design was that the pistol could be stripped very easily, simply by releasing a catch to allow the barrel to be cleaned once the slide was clear.

Not many of these pistols were produced for the Czech army before the Germans moved in, but the type was kept in production for some time. To the Germans the CZ 38 was known as the 9 mm **Pistole P 39(t)**, but most of the production went to police forces and some second-line units. Few survived after 1945. It is one of the few pistol designs that has not contributed some points to later designs.

Specification

CZ 38

Cartridge: 9 mm short (0.380 ACP)

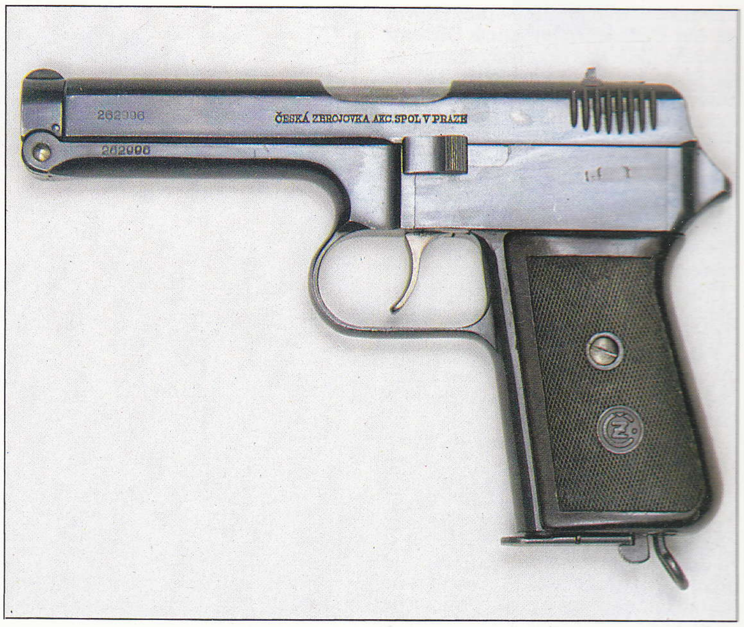
Length overall: 198 mm (7.8 in)

Length of barrel: 119 mm (4.69 in)

Weight: 0.909 kg (2 lb)

Muzzle velocity: 296 m (970 ft) per second

Magazine: 8-round box



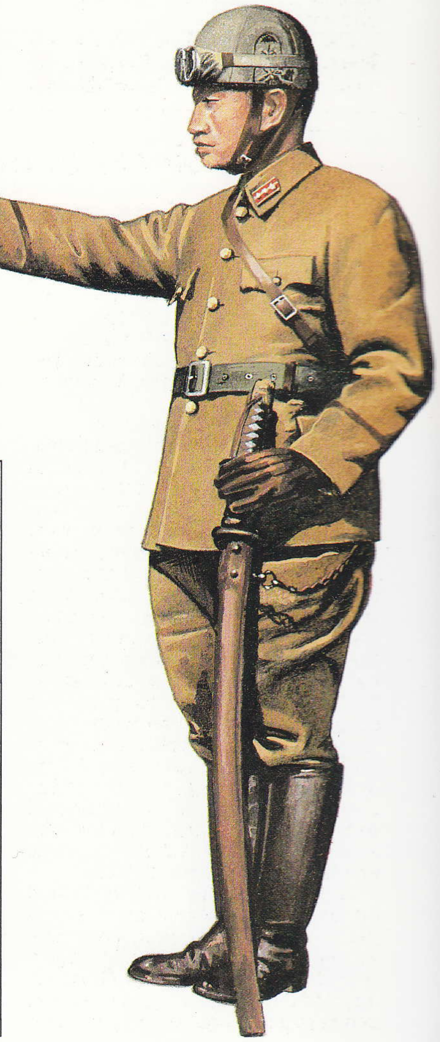
Generally regarded as a less than successful design, the Czech CZ 38 was a large and cumbersome 9-mm pistol. It could be stripped very easily but the stiff and slow double-action made accurate shooting difficult.

JAPAN

94 Shiki Kenju

In the 1930s the Japanese armed forces had in service a sound design of automatic pistol known to most Westerners as the 'Nambu' (8-mm Pistol Type 14), but following the large-scale Japanese incursions into China in the mid-1930s the demand for more pistols for the expanding Japanese forces could not be met. An easy solution appeared on the scene in the shape of an 8-mm (0.315-in) automatic pistol that had been commercially produced in 1934, but sales of this pistol had been few, as a result mainly of the odd and clumsy appearance of the weapon. The armed forces were then able to purchase existing stocks of these pistols and took over the production of more. The resultant weapons were initially issued to tank and air force personnel, but by the time production ended in 1945 (after more than over 70,000 had been made) its use had spread to other arms.

By all accounts this pistol, known as the **94 Shiki Kenju** (or **Pistol type 94**), was one of the worst service pistols ever produced: for a start the basic design was unsound in several respects, and then the overall appearance was wrong and the weapon handled badly, but allied to this was the fact that it was often unsafe. One reason for this last factor was that part of the trigger mechanism protruded from the left side of the frame, and if this was pushed when a round was in the chamber the pistol would fire. Another bad feature was the device to ensure that only single shots would be fired each time the trigger was pulled, for this was so arranged that a cartridge could be fired before it was fully in the chamber. When these faults were allied to poor manufacture and poor quality materials the result was a weapon that was unsafe to an alarming degree. The problem for the Japanese personnel who had to use the gun was that production was often so rushed that the product was badly made, and troops had to use the Type 94 simply because Japanese industry could produce nothing better at that time. Examples have been found that still bear file or other machine tool marks on the outside, and the degree of 'slop' in the mechanisms of some should signify that the Type 94 is a pistol that should not be carried or fired: it is a collector's piece only.



Despite the fact that this Japanese captain is a tank officer, he is armed with a traditional sword as well as a Type 94 pistol. The sword must have been rather unwieldy in the confines of a tank turret.

Specification

Pistol Type 94

Cartridge: 8 mm Taisho 14

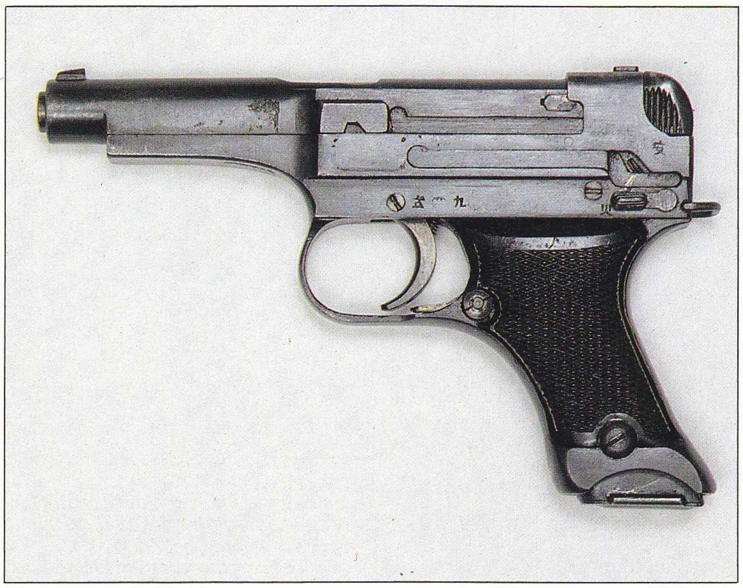
Length overall: 183 mm (7.2 in)

Length of barrel: 96 mm (3.78 in)

Weight: 0.688 kg (1.52 lb)

Muzzle velocity: 305 mm (1,000 ft) per second

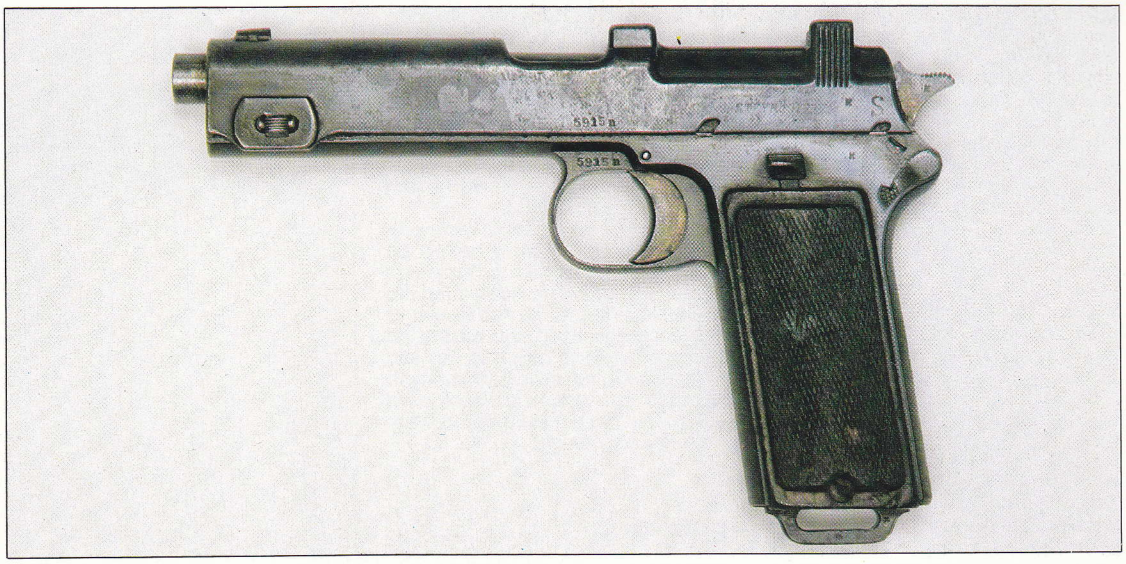
Magazine: 6-round box



The 94 Shiki Kenju was one of the worst pistol designs ever produced, for it was cumbersome, awkward to use and basically unsafe as the firing sear projected from the side and could be easily knocked to fire the pistol inadvertently. But it was all the Japanese had and it was kept in production until 1945.

ITALY

Pistola Automatica Glisenti modello 1910



The pistol that is now generally known as the **Pistola Automatica Glisenti modello 1910** was originally known as the **Brizia**, but the production and other patents were taken over by the Societa Siderugica Glisenti in the first decade of the 20th century. In 1910 this pistol was adopted by the Italian army as its standard service pistol, but for many years it managed only to supplement the earlier 10.35-mm modello 1889 revolver, and in fact this ancient pistol remained in production until the 1930s.

The Glisenti had several unusual features, and its mechanism was of a type little encountered in other designs. It used an operating system loosely described as a delayed blowback, in which the barrel and the receiver recoiled to the rear on firing. As it recoiled the action caused a rotary bolt to start to turn, and this rotation continued once the barrel had stopped moving after a distance of about 7 mm (0.276 in). The barrel was held in place by a rising wedge which was freed as the receiver moved forward again to chamber a fresh cartridge. All this movement had several effects: one was that while everything was moving the action was open and thus exposed to the ingress of debris such as sand (as in the North African deserts), and another was that the trigger pull was long and 'creepy', which made accurate fire that much more difficult. The action itself was made no more reliable by being constructed in such a way that the entire left side had no supporting frame and was held in place by a screwed-on cover plate. In prolonged use this plate could come separated from the pistol, causing it to jam. Even when in place the action was generally 'sloppy' and the moving parts displayed an unpleasant amount of internal movement.

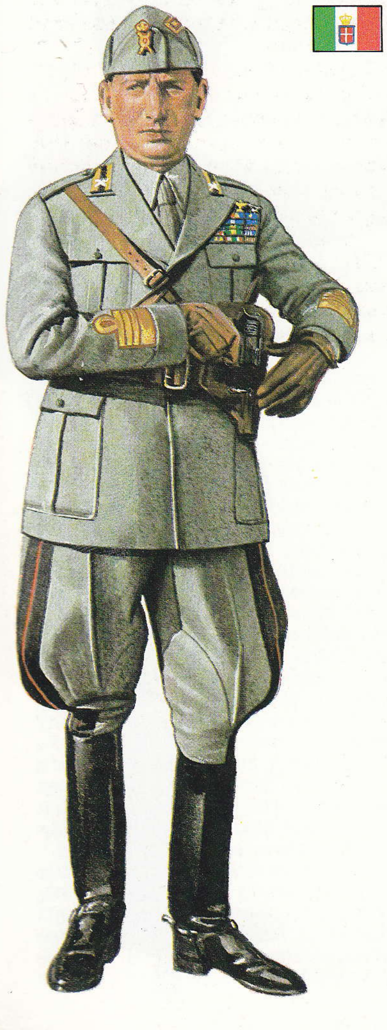
To overcome the worst of this action the Italians introduced a special cartridge for this pistol known as the 9-mm Glisenti. In appearance and dimensions it resembled the standard 9-mm Parabellum, but the propellant load was reduced to produce less recoil and thus less internal stress. This cartridge was unique to the Glisenti, and if normal 9-mm ammunition was inadvertently loaded and fired the results could be disastrous to pistol and firer.

The Glisenti remained in production until the late 1920s but it was still in use in the Italian army until 1945. It is now a collector's piece only.

The Glisenti modello 1910 was an odd mixture of design innovations allied with a weak frame design.

Specification

Glisenti modello 1910
Cartridge: 9-mm Glisenti
Length overall: 210 mm (8.27 in)
Length of barrel: 102 mm (4.02 in)
Weight: 0.909 kg (2 lb)
Muzzle velocity: 320 m (1,050 ft) per second
Magazine: 7-round box



ITALY

Pistola Automatica Beretta modello 1934

The little **Pistola Automatica Beretta modello 1934** is one of the joys of the pistol collector's world, for it is one of those pistols that has its own built-in attraction. It was adopted as the standard Italian army service pistol in 1934, but it was then only the latest step in a long series of automatic pistols that could be traced back as far as 1915. In that year numbers of a new pistol design were produced to meet the requirements of the expanding Italian army, and although the **Pistola Automatica Beretta modello 1915** was widely used it was never officially accepted as a service model. These original Beretta had a calibre of 7.65 mm, although a few were made in 9 mm short, the cartridge that was to be the ammunition for the later modello 1934.

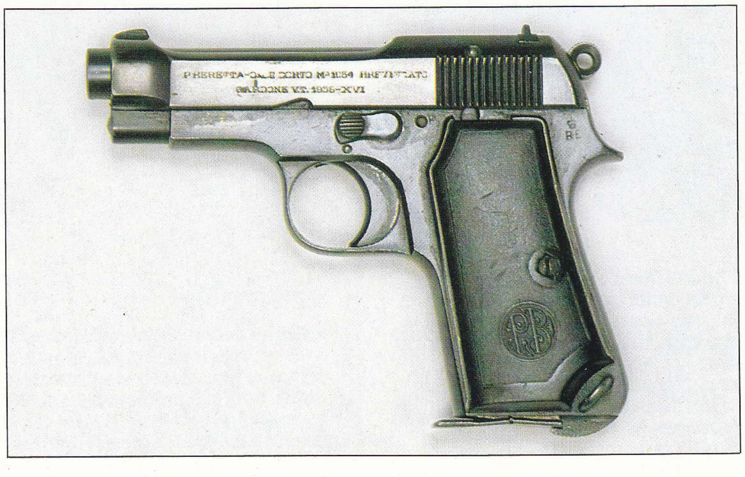
After 1919 other Beretta pistols appeared, all of them following the basic Beretta design. By the time the modello 1934 appeared the 'classic' appearance had been well established with the snub outline and the front of the cutaway receiver wrapped around the forward part of the barrel to carry the fixed foresight. The short pistol grip held only seven rounds and thus to ensure a better grip the characteristic 'spur' was carried over from a design introduced back in 1919. The operation used by the mechanisms was a conventional blowback without frills or anything unusual, but although the receiver was held open once the magazine was empty it moved forward again as soon as the magazine was removed for reloading (most pistols of this type keep the receiver slide open until the magazine has been replaced). The modello 1934 did have an exposed hammer which was not affected by the safety once applied, so although the trigger was locked when the safety was applied the hammer could be cocked either by hand or by accident, an unfortunate feature in an otherwise sound design.

The modello 1934 was almost always produced to an excellent standard of manufacture and finish, and the type became a sought-after trophy of war. Virtually the entire production run was taken for use by the Italian army, but there was a modello 1935 in 7.65 mm which was issued to the Italian air force and navy. Apart from its calibre this variant was identical to the modello 1934. The Germans used the type as the **Pistole P671(i)**. Despite its overall success the modello 1934 was technically underpowered, but it is still one of the most famous of all pistols used during World War II.

Beretta automatics (right) were amongst the most sought after of war trophies. Although of excellent design, they were really too light to be effective service pistols, but as personal weapons to officers such as the colonel depicted (left), they were highly prized.

Specification

Beretta modello 1934
Cartridge: 9-mm short (0.380 ACP)
Length overall: 152 mm (6 in)
Length of barrel: 90 mm (3.4 in)
Weight: 0.568 kg (1.25 lb)
Muzzle velocity: 290 m (950 ft) per second
Magazine: 7-round box



Armed Forces of the World

US Navy

Part 1

USS **Constellation** ***on station in the South China Sea in 1974. The presence of a US Carrier Battle Group in areas seen as being within the US sphere of influence gives the United States a massive power projection capability, which it seems increasingly ready to use.***

For 40 years, since it was proved in the Pacific, the carrier battle group has remained the linchpin of American naval strategy. Credit for the idea must go to the British and Japanese, who were particularly successful at Taranto, Pearl Harbor and Trincomalee. The Americans adopted the concept enthusiastically, using a growing number of carriers as the core of task groups, to wage a mobile war against both the Japanese fleet and Japanese-occupied territory.

So great was the impact of the eventual US victory that the carrier has retained its pre-eminent position in American naval thinking, almost irrespective of the theatre or application. In brushfire or cold war situations, the carrier has tremendous 'presence', but all too often these expensive and vital national assets are being hazarded unnecessarily where a lesser vessel could perform equally effectively.

Until the 1970s there existed adequate decks in the 33,000-ton 'Essex' class units. Becoming increasingly undersized to operate the ever faster and heavier aircraft entering service, these performed usefully as ASW platforms and in training duties. Being elderly, and to a certain extent expendable, such ships would encourage bold tactics where the value and scarcity of larger units may tend to inhibit. Unfortunately, only a handful remain and their functions have, necessarily, been assumed by later vessels, whose attack potential has thereby been reduced.

To reap the benefits of series production in World War II, the 'Essex' design was kept simple and virtually unchanged over the whole series, and the ships needed to be complemented by a new and larger design even before the end of hostilities. At 45,000 tons the three 'Midway' class ships represented a considerable jump in size and two of them, several modernizations later, are still in service, with the USS *Coral Sea* due to continue until 1991; USS *Midway* could well see out the century. They were the first US warships to break the requirement of conforming to Panama Canal parameters for the rapid interchange of units from one seaboard to another. The reason was largely because of the adoption of an armoured flightdeck, following British experience in the Mediterranean. So much extra weight at a considerable height above the waterline called for a significant increase in beam.

Warfare entered the nuclear age in 1945 and, with ballistic missile technology still in its infancy, the only practical method of delivery of ordnance remained the aircraft. Design was started of a specialist bomber and of a large carrier on which to deploy it. Of 65,000 tons standard displacement this carrier would have been graced with the name USS *United States* but, scarcely commenced, she fell victim to Congressional criticism and a change of direction in the choice of delivery system.

Within a year, in 1950, the Korean War broke out and Allied flightdecks proved often to be virtually the only means of wielding air power. The contribution of carriers was crucial, and their continuing existence was vindicated. Criticism of the 'super carrier' concept was muffled, and plans of the *United States* were dusted off, updated and funded as the USS *Forrestal*, which was laid down in 1952. A class of four was completed between 1955 and 1959: each able to operate about 90 jet-propelled aircraft also the newly-introduced and British-developed angled deck and steam catapults.

A near-identical fifth unit was completed in 1961. She was the USS *Enterprise*, and differed fundamentally in being nuclear-powered, one of a prototype squadron (the others were the cruiser USS *Long Beach* and the large frigate USS *Bainbridge*) designed to explore the technical problems involved. Though officially developing the same power as the 'Forrestals' and their four improved 'Kitty Hawk' class follow-ons, the *Enterprise* has infinitely greater endurance. If accompanied by similarly-powered escorts, she would not be trammelled by the need for regular refuellings at sea.

USS **Nimitz**, *USS* **Eisenhower** ***and escorting cruiser*** *USS* **South Carolina** ***in the Indian Ocean. The two carriers probably cost more to operate than the whole navies of most other nations.***

An A-6 pilot's-eye view of the approach to a 'Midway' class carrier. USS Midway *and USS* Coral Sea*, dating from the late 1940s, are still in front-line service today, and may remain so until well into the 1990s, when* Midway *may well exceed a half century of operations.*

Nevertheless, it was soon demonstrated that on a war footing, the *Enterprise*'s crew of over 5,000 and concentrated flight operations needed frequent topping-up of essentials such as aviation spirit, ordnance and a wide variety of foodstuffs and dry stores.

The *Enterprise* proved remarkably successful, and the USS *John F. Kennedy* of 1968 was to be the last steam-propelled unit, entering service only weeks after the keel-laying of the USS *Nimitz*, lead ship of an extended class of CVNs, of which three are currently (1984) in service, one building and two funded. It is a tribute to the original 'Forrestal' design that it has been remarkably little changed over the years, although the ships do seem to share the same proneness to fire as earlier classes. Their great limitation is, of course, their cost, now well in excess of $2 billion per unit. As this inevitably inhibits the number constructed and no ship, however good, can be in more than one place at once there is endless argument about the alternative merits of more, but smaller, decks. Though these would, in some respects, increase the fleet's flexibility and reduce the chances of an overwhelming Soviet pre-emptive nuclear strike at sea, they are not approved on the grounds that to fund them would be to divert funds from the high-capability big carriers (a parallel argument is advanced also when conventionally-powered submarines are mooted).

Fifteen large carriers is the target, each to be the core of a battle group. To keep such a force of highly complex ships up to date the Service Life Extension Program (SLEP) was initiated, each ship in turn undergoing a 2½-year modernization.

With the gradual disposal of older and smaller carriers, the large units have had to adopt a multi-purpose fit. Their embarked air wings now possess ASW as well as strike and interception capacity, together with early warning, electronic warfare, reconnaissance, tanker and communications aircraft.

Over the last two decades, the naval gun has been looked upon in many quarters as obsolete in a missile-dominated age. This it is not, having qualities that will guarantee its future as a weapon complementary to the missile. For example, fire support (direct or indirect) for landings is not the purlieu of the missile yet only two old 'Des Moines' class cruisers and the newly reactivated 'Iowa' class battleships have weapons of a weight in excess of the standard 127-mm (5-in) gun. The proposed lightweight 203-mm (8-in) gun concluded apparently successful sea trials, yet was not funded for the planned fleet retrofit programme.

The battleships, whose Phase I modernizations may well be halted at only three units and whose Phase II modernizations will probably never take place at all, have been resurrected more as platforms for cruise missiles than for their 406-mm (16-in) gun batteries. These ships are designed to absorb punishment and have a high level of survivability built into them, a quality unique in today's warships.

A vertical-load 152-mm (6-in) weapon with greatly simplified mechanics is available, firing either a standard range of ammunition or improved conventional munitions (ICM) with options including extended range (through rocket boost), laser-guided rounds and nuclear warheads.

Seen recently after a major refit, USS Enterprise *has been in service since 1961. With the nuclear-powered cruisers* Long Beach *and* Bainbridge*, the similarly-powered* Enterprise *sailed nonstop around the world to demonstrate the potential of nuclear power.*

12 Pass